

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER



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BALTIMORE, JANUARY 30, 1908.

Mr. T. G. Philpot, manager of the
Augusta (Ga.) Box & Manufacturing
Co., writes to the MANUFACTURERS'
RECORD as follows:

From time to time conditions arise that
make your paper invaluable. And it seems
it would be impossible to do without it.

Mr. A. M. Carpenter of Anderson, S.
C., is equally complimentary. He writes:

Let me express my appreciation of the
MANUFACTURERS' RECORD. It is always doing
an immense work for the South. I read it
with more interest than any of the many
papers of many kinds that come to this office.

Mr. J. Bascom Mercer of the Mercer
& Evans Company, Wilmington, N. C.,
writes:

Please send copy of last week's issue of the
MANUFACTURERS' RECORD. This copy did not
reach me, and I do not like to lose a single
link in the chain of my files; besides, I can-
not afford to miss getting my share of enjoy-
ment and pleasure, to say nothing of the
real benefit I derive from it by keeping in
close touch with its rich harvest of valuable
information. Your excellent journal is doing
more to build up the great new South and
keep before the public eye its varied and
wonderful resources and capabilities than
any other known agency.

SOLVING A LABOR PROBLEM.

If the Bureau of Industrial Statistics
and Information (so-called) of Mary-
land is to continue to represent some-
thing worse than annual waste of \$10,-
000 of the taxpayers' money, it will
really make very little difference who
may be appointed "chief" of the bu-
reau. As a matter of fact, the bachelor
Governor of the State ought, under the
auspice of leap year, to take the bull by
the horns for all time and solve the

problem by appointing as "chiefess" of
the bureau someone who is unfortunate
enough to be so far removed from the
sphere of woman's duties as to have
plenty of time to devote herself to af-
fairs of State.

THE WORLD'S AWAKENING.

The world is entering upon a new
epoch. The records of human history
show no period of more transcendent
importance, excepting that of the birth
which was heralded by the angels' song,
"On earth peace, good-will to man." The
student who marks the mighty
movements of olden days, the rise and
fall of Rome, the momentous changes
wrought during the Middle Ages, the
discovery and settlement of America,
will find none that is equal in spec-
tacular effect nor in influence upon the
destiny of mankind to the awakening
of the Orient, really to the awakening
of the world, now in progress, and to
the mighty movements which are being
put into operation as an outcome of the
new world that is rounding into form
beyond the Pacific. China, with its
400,000,000 people, people strong of
brain and muscle, a country which
dates its history beyond the time when
Babylon flourished or when Moses led
the children of Israel out of Egypt, is
stirring with pulsations of modern life.

Pause a moment and consider what
the awakening of that densely peopled
land to Western methods, to machinery,
to electric light and power, to
railroads, to the music of the spindles
and looms, the roar of the furnace and
the throb of the locomotive, will mean
to the world's civilization. The white
race, for centuries the conquering, dom-
inating power of earth, is now to meet
in competition in every line of human
activity the yellow races, which in num-
ber much exceed the white. Japan in
her war with Russia proved the tremen-
dous potentialities of the yellow
race. In the building and management
of ships, the organization and effective-
ness of armies, in chemistry, in medi-
cine, in the arts and sciences, a nation
scarcely half a century old in modern
ways has proved its vast power when
pitted against the white race with thou-
sands of years of world activity to its
credit. What Japan has done is a hint
of what it will do. What it has
wrought will be matched by China,
and China's progress will doubtless be
on a scale as much greater than Japan's
as its population and natural resources
exceed the latter's. On sea and on land,
in industrial advancement, in commerce
and trade, the yellow races will give to
the white a competition which it has
never known.

This does not necessarily mean dis-
aster nor the mastery of the world by
Oriental forces. It does, however,
presage the coming of marvelous activi-
ties in the whole world. The progress
of industry, the building of railroads in
Asia, will be marked by an advance in
the rate of wages and the scale of liv-
ing throughout the East. The heavy
migration from Europe to America,
country to flow from the establishment

coupled with the industrial develop-
ment of all continental countries, is
gradually effecting an upward move-
ment in wages there. But it is not in
the Orient alone that this awakening
is seen. In South America, in Africa
and in the isles of the sea the same con-
ditions prevail. We are beginning to
see the fruition of the miracles wrought
by modern inventions in changing all
human conditions. The railroad is
scarcely three-quarters of a century
old; really, as an important factor in
human affairs it has scarcely half a
century to its credit. The telegraph,
the telephone and other modern labor-
saving inventions have come into play
so rapidly of recent years that the
world is now receiving a momentum in
material advancement unlike anything
recorded in history. With the progress
of mankind here and in Europe, with
the closer touch of all the world by
cable, steamships and railroads, with
the cutting away of the isthmian bar-
rier which has separated the Atlantic
and Pacific, the people of every clime
and every nation are being suddenly
brought together as never before since
the dawn of creation.

It is a marvelous panorama upon
which we are looking. Before our eyes
is being played the greatest drama of
the ages. We are taking part in the
most wonderful movements which our
old earth has ever seen. The dullard
and the sluggard even must be quick-
ened into life and enthusiasm as
they contemplate the Eastern world's
awakening from its Rip Van Winkle
sleep for almost unnumbered centuries
and the mighty changes which are
being wrought in older civilizations by
modern improvements. The boasted
civilization of Europe and America,
even the material progress about which
we talk so enthusiastically, will all pale
into insignificance before the marvels
which science and industry are prepar-
ing to work out for man's advancement.
The greatest problem for solution which
these conditions bring to us will be,
How shall men be built up and broad-
ened in their horizon and in their abil-
ity to grasp the tremendous possibili-
ties of the years which are ahead?
The cry for men, men, is ever growing
louder. The powers of nature and sci-
ence, the economic forces which have
been set to work and which cannot be
stayed, will tax the mental and moral
stamina of all mankind.

SOUTHERN FOREST RESERVE.

It is hoped that the demonstration to
be made this week at Washington in a
hearing before the committee on agricul-
ture of the House of Representatives in
favor of the bill to create forest re-
serves in the White mountains of New
England and in the Southern Appa-
lachians may bring to fulfillment at
this session of Congress a plan which
has been favorably considered in other
Congresses and which is backed by a
public opinion which recognizes the im-
mense benefits to a large part of the

of the reserves. In the South especially
there has been a sustained effort to
bring to Washington this week repre-
sentatives of the many interests to be
affected by the preservation of the Ap-
palachian forests. It is planned to set
forth the menace to transportation,
manufacturing and agriculture in per-
mitting the highlands, the sources of
many of the most important streams of
the country, to be denuded of their cov-
erings and to bring about Congressional
action that, without injury to the indi-
vidual or to other interests, may not
only preserve the remnants of the orig-
inal forests of this country, but also
restore many of the devastated areas.

THE UNFORTUNATE SOUTHERN MOUNTAINEERS.

Sympathy of the intelligence of the
country goes out to the Southern mounta-
ineers. They represent pre-eminently
the survival of the self-reliant spirit
and the integrity that once character-
ized the American people. Yet sociolo-
gizers and "uplifters" of one kind or
another persist in attempts to work
New York "philanthropy" for their ben-
efit ostensibly and to fill ready and un-
questioning ears with theories about
the terrible straits in which mounta-
ineers are found. Comparisons are
sought between the millions of dollars
devoted by the North to the "education
of the negro" and the "neglect" in the
same quarter of the "poor children of
the white Southern mountaineers." It
is a pity that some of the unlettered,
but nevertheless highly intelligent,
Southern mountaineers — eliminating
from that category several hundred
thousand progressive and prosperous
dwellers in the highlands of the South
—cannot be heard in their own behalf
and thus put an end to the agitation,
approaching mauldinism at times, look-
ing for educational dollars that can
only demoralize a poor but hardy and
sturdy people. In the absence of pro-
tests on the part of the individuals most
affected, it may be suggested that the
South discourage volunteer "uplifters"
from prating about moneys sent in for
the education of the negroes and en-
courage them to find their vocation, and
perhaps their salaries, direct or indi-
rect, in New York city, where there is
more suffering and degradation to the
square foot than there is to the square
mile in the Southern highlands; that it
cease to co-operate in education with the
"philanthropy" intent upon boost-
ing the negro into dominance in the
South and seeking to make Southern
whites parties to the game to their own
undoing, and that it insist that indi-
vidual States shall make and carry out
their own educational programs for
whites and blacks, regardless of the
wiles of New York "philanthropy."
Above all else, the South must strain
every energy to prevent its mountain
folk from coming down into the de-
graded mendicant condition of too many
Southerners, who, in spite of "educa-
tional" advantages of the best sort, are
found to the front in the chase for every

dangling and deluding dollar for colleges that the colleges cannot accept and, at the same time, maintain their decency and self-respect.

Education of the mountain whites will be speeded properly only by the individual States providing the means in proportion to their respective abilities. There is not a single Southern State having a mountain population which is not able, out of its own wealth, to provide all proper means for the education of all its rising generation. As long as the people are encouraged to look beyond their own borders for educational funds, as long as denominational colleges submit to philanthropy with a string to it, so long will persist the shame of Southern States not providing the machinery for education commensurate with their ability.

There are, to be sure, difficulties in the way of reaching effectively for educational purposes all of the children of the Southern mountains—difficulties due to the nature of the country. The nature of the country will not be changed by dumping in school money upon which the people have no claim, although such dumping would surely change for the worse the nature of the people. If anyone wishes to invest money in the Southern mountains, let it be invested in extending railroads, steam and electric; in building cotton mills and other industrial establishments that will offer opportunity to the population for self-respecting work and will create better markets for the products of the mountain farms. Such investments would be the greatest educational agencies that could be devised, both in destroying the isolation, which is the principal drawback for the mountain folk, and supplying them with the means for contributing to the educational funds of the State in which their children would share. As it is, the cotton mills of the South have been the most efficient agencies for education in the South in the past 25 or 30 years. Such agencies may be multiplied many times. As an educational influence the investment of \$100,000 in a cotton mill is worth ten times the hundred thousand dollars given a Southern college, with the result of blinding whites of the South to the certain end of their co-operation with the philanthropy, one phase of which is concerned, in the language of one like Robert C. Ogden, with "the political and intellectual advancement of the negro in the Southern States," and that only discovers the educational needs of Southern whites when Southern intelligence begins to awaken to the scheme of "philanthropy" for negro education.

SELFISHNESS AS A VIRTUE.

One phase, fortunately quite limited, of the New England mind would be able, if necessity arose, to persuade itself that it is committing an act of public virtue in insisting that the prohibitory sections of the decalogue are really mandatory. In a certain sense that subliminal mental attitude is revealed in the suggestion by Gov. Curtis Guild of Massachusetts that practically everything that Massachusetts needs in its business but cannot produce itself should be admitted to this country free of tariff duty. The articles on his free list other parts of the country would gladly furnish Massachusetts if it was willing to pay the price. If those articles should be admitted free of duty, other parts of the country might just as well shut up shop. Yet Governor Guild of the State that has waxed fat because of the tariff insists upon it that the tariff question should be treated,

not as a local question, but as a national question. It would be difficult to find any part of the country where the tariff question is more local than it is in Massachusetts. Governor Guild should remember that the caudal appendage ought not to be expected to wag the canine—in all ages.

THE B. & O.'S ORDER AGAINST INTOXICANTS.

"For the protection of life and property and good service the enforcement is imperative," is the opening paragraph of a circular issued by the Baltimore & Ohio Railroad management directing that hereafter no one connected with the running of trains, such as dispatchers, trainmasters, engineers, firemen, brakemen, conductors and yardmen will be permitted to use intoxicants at any time, either on or off duty, and no person using such beverages will be employed hereafter by the Baltimore & Ohio Railroad.

It is to be presumed, of course, that the officers of the Baltimore & Ohio Railroad would not issue to their men an order of this kind, to entirely abstain from intoxicants, unless they are themselves prepared to set the example. If absolute sobriety to the extent of entirely abstaining from the use of intoxicants is required of the men who have to do with the running of trains (and this will probably not be questioned by anyone), it would seem that the same conditions would prevail in regard to the men who have in hand the running of the railroad itself.

Some years ago the writer was traveling in the private car of an official of a leading Southern railroad. There were quite a number of guests on board, and at the dinner hour someone made a suggestion about the absence of wines. The officer of the road explained that the management expected the men connected with the running of trains to avoid the use of intoxicants, and that they did not believe in issuing an order to the men and then setting them a bad example by furnishing wines or other intoxicants even to the guests of the road when traveling on the private cars of the officers. It is difficult to see how men of right thinking could have taken any other stand, and we suppose, of course, that henceforth the Baltimore & Ohio Railroad, from the highest official to the firemen and brakemen, are pledged, whether on or off duty, to the avoidance of all intoxicants.

FROM EVERY PART OF THE WORLD.

The Atmospheric Condensation Co., manufacturers of steam condensers and water softeners, of Kansas City, in a letter to the MANUFACTURERS' RECORD enclosing a new advertising contract, says:

Since the writer has had the pleasure of meeting you personally, we beg to advise that when your Mr. Boughton first called on us he secured our order chiefly on the statement that the MANUFACTURERS' RECORD had a large circulation in the South and thoroughly covered that field. As we have received inquiries through our advertisement in the MANUFACTURERS' RECORD from Lyons, France, Moscow, Russia, Carthagena, Columbia, S. A., we now feel that Mr. Boughton's statement has been fully demonstrated.

This is only an illustration of the fact that the MANUFACTURERS' RECORD often gives more than it promises. Our advertiser is getting a little more than he anticipated. He looked for good results from the South, but he did not know that the MANUFACTURERS' RECORD would be equally as efficient in bringing inquiries from all parts of the world.

From far-away Finland comes a let-

ter from Aktiebolaget Linotol-Beton, Ingeniors and Affarsbyra, who, writing from Helsingors, referring to a brief notice concerning their needs published in the MANUFACTURERS' RECORD, say:

We are pleased to state that this notice daily brings us a batch of letters and price-lists from various parts of America and Europe relating to concrete machinery and goods, and have no doubt that we shall be able to get connections with several firms to mutual benefit. These notices have been to us of far greater service than many advertisements we have inserted in other papers, and beg to express our thanks for your efforts in this respect.

Another illustration of this phase of the MANUFACTURERS' RECORD's work is a letter from Mr. J. M. Willson, Jr., of Kissimmee, Fla., in which he says:

A few days ago I had a letter from Genoa, Italy, answering an advertisement I had with you in August last year.

Not only does this show the value of the MANUFACTURERS' RECORD as an advertising medium to reach foreign people, but it shows the value of an advertisement long after its appearance. This advertisement of Mr. Willson, which was published last August, was of timber property for sale, and though it had not appeared again for six or seven months he is still getting replies from it, as indicated in this letter.

Even the good women are close students of the MANUFACTURERS' RECORD, and Mr. A. Julius Wiehardt, consulting and supervising engineer, of Cleveland, Ohio, in the course of a letter says:

The other night I brought a copy of the MANUFACTURERS' RECORD home with me. My wife got hold of it and read it all the evening, and when I joked her about it she replied: "Well, it just makes one's mouth water to read what this paper says about the South."

And Mrs. Andrew A. Booth of Delmar, N. Y., writes:

Mr. Booth is preparing to take a trip through the South and Southwest, and expects to be gone for several months. After his return he will renew his subscription, for he thinks a great deal of the MANUFACTURERS' RECORD, and, in fact, he finds it so interesting that he supplies his friends and neighbors for miles around.

One of the most gratifying features of the work of this paper is the high appreciation in which it is held by thousands of readers in the North and West and by many throughout all foreign lands, as illustrated by these few out of many similar letters constantly received from foreign lands and from Northern and Western firms. Working for over 25 years unceasingly as it has done for Southern upbuilding, it has at the same time sought to press upon the people of the whole country the great questions which affect national prosperity and which bear upon the material advancement of every section. But that it is read with just as much interest, and that its good work is heralded far and wide through the North and West as in the South, is the highest compliment which it could desire; for while pre-eminently a Southern paper, it is national in its thought and national in its scope.

EDUCATION BY STATISTICS.

Southern newspapers are somewhat agitated by a revival, credited to Dr. C. Alphonso Smith of the University of North Carolina, of the circulation of statistics supposed to prove that success in life is to be measured by the amount of going to school a man may have. In the present instance the statistics assume the following form:

1. That from 1800 to 1870 the uneducated boy in the United States failed entirely to become so notable in any department of usefulness and reputable endeavor as to attract

the attention of the *Who's Who* editors, and that only 24 self-taught men succeeded.

2. That a boy with only a common-school education had, in round numbers, one chance in nine thousand.

3. That a high-school training increased this chance nearly 22 times.

4. That college education added gave the young man about 10 times the chance of a high-school boy and 200 times the chance of the boy whose training stopped with the common school.

5. That the A. B. graduate was pre-eminently successful and that the self-educated man was inconspicuous.

Southern newspapers are also concerned about Dr. Smith's astonishment that the South before the war "without a public-school system could hold her own so long in national leadership." Advancing from the less to the great, it may be suggested, if Dr. Smith has been correctly quoted, that his statement as to a public-school system is misleading unless it has important qualifications. When one mentions the public-school system the instinctive thought is of the public-school system of today. If the statement that the ante-bellum South was without a public-school system means that the South had not the kind of public-school system that the country has today, the statement approaches accuracy, and it would be just as accurate to state that the rest of the country was before the war without a public-school system like the one it has now, and that the South today has, with its population of 26,000,000, a better public-school system, measured by the funds available for its support and the number of its pupils, than the whole country, with a population of 31,000,000, had 50 years ago. As a matter of fact, both the South and the rest of the country had before the war developed the public-school idea, and the difference between the South and the rest of the country in that particular was one of degree. This appears from the following table showing the number of pupils in the public schools and the income of the schools in 1860.

| States. | Pupils. | Income. |
|---------------------------|-----------|-------------|
| Alabama..... | 61,751 | \$489,474 |
| Arkansas..... | 19,242 | 120,613 |
| District of Columbia..... | 2,326 | 7,575 |
| Florida..... | 2,032 | 20,099 |
| Georgia..... | 56,087 | 449,966 |
| Kentucky..... | 156,158 | 499,644 |
| Louisiana..... | 31,813 | 469,219 |
| Maryland..... | 36,216 | 243,079 |
| Mississippi..... | 30,970 | 385,679 |
| North Carolina..... | 105,025 | 268,719 |
| South Carolina..... | 20,716 | 204,593 |
| Tennessee..... | 138,809 | 402,904 |
| Texas..... | 34,611 | 414,168 |
| Virginia..... | 55,443 | 496,638 |
| Total..... | 781,199 | \$4,474,370 |
| United States..... | 4,965,894 | 22,545,519 |

In discussion of the ante-bellum South's educational system in its effect upon leadership, one must bear in mind the tremendous influence of the academy, the home school and the "old-field" school in the making of men and in part explanation of the comparatively slow growth of the public-school idea in the South. Consideration of that may, perhaps, lead the interested student to trace the decline of capacity for leadership in the country generally since the war to a perversion of the public-school idea, resulting in far more attention being given to building up a public-school system than to using the public schools for truly educational purposes, to the machinery of education rather than to the material to go through the machinery.

In dealing with the five propositions as to the dependence of various grades of success upon attendance upon various grades of schools one must bear in mind that the deductions are based upon an exceedingly narrow and thin foundation if, as suggested by the text, the foundation is the list of about 16,000 biographies of living Americans contained in the valuable volume, *Who's*

Who in America, of which there have been four editions.

In the first place, 16,000 biographies, accumulated from a population of more than 80,000,000, may be safely used in arguments bearing only upon the 16,000. They are too few to generalize from in any sociological theorizing.

In the second place, it is narrowing the definition of education far within the limits of wise and safe philosophy to hold education as the result of going to school and college; that is to say, education that brings real success, the benefit conferred by the educated upon his fellow-beings.

In the third place, the five propositions are full of questions of individual opinion. For instance, one must not infer from the first proposition that from 1800 to 1870 only 24 self-taught men succeeded. It really means that among the 16,000 persons included in *Who's Who* the names of only 24 self-taught men are found. Again, what does the degree of A. B. amount to as a measure of education or as a guarantee of success even in becoming notable? The graduates of some colleges conferring the A. B. degree might be found to have no more book learning than the graduates of some first-class high schools and to have less education of value to themselves and to others than the man who stepped from the grammar-school grade of the public schools into the beginning of his lifework. If there could be any general agreement as to the meaning of success and if it were possible to assemble the careers of 16,000 men holding the A. B. degree from one college and compare them with the success of 16,000 self-taught men, one might begin to have some data for a statistical demonstration of the relative importance of a college career as a contributor to real success in life.

No sane man would deny the value of a proper school and college career for individuals capable of being benefited by such schooling. No sane man would deny that, all things else being equal, the technically trained man—using technically trained in its broadest sense, that of having one's powers developed to their best capacity for exercise in some special line of activity—has the self-taught man at a disadvantage. No statistics are required to prove that.

The trouble with so much of the educational statesmanship of the day is that it inclines to resort to the use of statistics to demonstrate self-evident facts and that it is unacquainted with the elements of the science of statistics, which, indeed, is itself in rather a chaotic state.

THE PUBLIC NEEDS REQUIRE HIGHER RAILROAD RATES.

It is announced that among the subjects to be discussed at a proposed "Prosperity Convention" to be held in the near future is that of lower railroad freight rates. If this be true, then the sooner that subject is dropped or the convention abandoned the better it will be if the people at the head of this movement really desire to encourage the development of prosperity. This country is suffering today from low freight rates. Much of the distress of the past two or three months in business and financial circles has been due to the ceaseless agitation of honest but misguided business men, of misinformed newspapers and of demagogues pure and simple who have been clamoring for lower freight and passenger rates. The country does not need either. What it does need is rates that will give to the railroads profits large

enough to bring into the railroad investment field the \$5,000,000,000 to \$10,000,000,000 needed for the reconstruction of the railroad system of the country. Temporarily the railroads have more cars than they need, but this does not count in a study of the great problem of transportation. A few months ago there was utter and absolute stagnation for weeks in all banking circles, and practically all the banks of the country suspended payment. Naturally this brought about such a sudden stoppage in many lines of trade and industry that the railroads are of necessity at the moment burdened with more cars than needed. Dismiss that situation, however, for it will soon be changed, and we are again face to face with the problem which the MANUFACTURERS' RECORD has for some years been seeking to drive in upon the railroads and business people of the United States, viz., that our railroad facilities are wholly inadequate to meet the increasing growth of the country, and for years the railroad people seemed as unable to foresee these conditions as the general public.

Partly by reason of the agitation on the part of politicians and business men and the press against the railroads, they are wholly unable to secure the vast sums needed for properly improving their roadbed, increasing their motive power and enlarging their terminal facilities. With normal conditions and with the inevitable growth of the country which goes on in bad times as well as in good, we shall soon be up against a condition in which the congestion of traffic, the delay in the handling of freight, the lateness of passenger trains, the wrecks through inefficiency both of men and of tracks will far exceed what we have seen during the last few years. It is probably not an exaggeration to say that few if any of the railroads of the United States are today fully keeping up their physical condition and their ability to safely handle passengers and promptly handle traffic. With many of the railroads there is a steady and rapid deterioration going on both in track and motive power. It needs a far greater expenditure of money than the railroads can possibly find at present simply to keep their roadbed and their transportation facilities from deterioration. Not enough money is being expended to do this. A year hence, unless there is a great change, the wrecks and the loss of lives and the delay in the handling of freight will call forth bitter condemnation of railroad mismanagement, but the public will be responsible and the public will be the greatest sufferer. The railroads may be still further injured, but the greatest injury in the final analysis will be to the travelers and the shippers.

The railroads of this country are hauling freight at less than one-half of the freight charges of Europe; they are capitalized at an average of less than one-third of the capitalization of the railroads of Great Britain. In Europe, where population is dense and enormous industrial development is concentrated in a limited territory, the railroads are not able to do for the public one-half as much in the way of freight rates as the railroads of this country are doing, notwithstanding our comparatively sparse population and the vast distances which freight must be carried. If the people of this country want to bring back prosperity they must sweep from the statute-books much of the legislation of the last few years and recognize that not simply the railroad interests but the necessities of

the public require that the railroads shall be given the opportunity in passenger and freight business of advancing rates to a point which will yield them so large a profit as to enable them to reconstruct the railroad system of the country.

It was not many years ago when the first electric railway was established. Within five or six years the horse-car lines of the country had to be rapidly changed to electricity at an estimated cost of over \$1,000,000,000. The moment electricity became the motive power for street railways the horse-car line was practically bankrupt unless it could immediately be reconstructed along modern methods of electric operation. A complete revolution, almost over night, changed the whole urban transportation from mule and horse power to electric power. A change almost as radical must come about in the railroads of the country. It is not likely that in the near future there is to be any general change from steam to electricity, but the advancement of the roads, their betterment, their increased facilities for handling traffic must be advanced proportionately just as rapidly as was the change from the horse car to the electric car. It is conservative to say that this would cost from \$5,000,000,000 to \$10,000,000,000. One of the railroad officials of the country has said that within 10 years we must spend upon the extension of American railroad facilities more money than has been expended upon all the railroad building of the country from the beginning of railroad construction over three-quarters of a century ago, and that we must do it within the next 10 years or see American development halted. It is impossible for the money to be found to do such a vast work as is needed unless freight and passenger rates are high enough to yield large profits, that money may be tempted from every hiding place to seek railroad investments. Here and there business men with an apparent utter lack of comprehension of this situation are still talking about lower freight rates. In the light of the needs of the country the very suggestion is too absurd for sensible men to consider. Here and there a particular freight rate may be too high, but how triflingly small would be the loss from this as compared with the boundless prosperity which would be created by the expenditure of seven or eight billion dollars in railroad construction.

THE INTERCOASTAL CANAL.

What is said to be the first transfer of land in Southwest Louisiana in connection with the intercoastal canal, connecting the Mississippi and the Rio Grande rivers, took the form a few days ago of the granting of the right of way by a land company through a strip of land 14 miles long and of sufficient width to make the cut for the canal. The strip extends, according to a dispatch to the *Houston Post*, at the extreme western arm of Vermilion bay, about 15 miles south of Abbeville, and runs almost due west to White Lake. It is estimated that the amount of actual digging for this 15-mile stretch of canal will be only eight miles. This canal may become a part of the great inland waterway which it is proposed to provide by building canals here and there and by utilizing such protected waterways as Delaware and Chesapeake bays and the sounds along the Atlantic and Gulf coasts, thus giving a safe means of water transportation between Massachusetts bay and the Rio Grande river. The active interest in the stretch through Louisiana and Mississippi

is an inspiration to the men who are seeking to further plans for the construction of other parts of the waterway.

STEEL CORPORATION IN ALABAMA

Mr. Erskine Ramsey, vice-president and engineer of the Price Consolidated Coal Co., Birmingham, in an interview with the *Age-Herald*, referring to the visit of inspection by a number of iron and steel people to the new steel plant of the Tennessee Coal, Iron & Railroad Co., said:

"The Tennessee Company is doing great work. It had been some time since I last saw the steel plant at Ensley, and I marveled at the improvements that have been made there. I had expected to find something worth looking at, but the splendid work that has been done in the past few months proved a most agreeable surprise. The company's steel plant is really a revelation. It is today far ahead of anything the most enthusiastic prophets of the Birmingham district had dreamed of, and by the time the present management, under the United States Steel Corporation, gets a little farther along with its development it will rank with the model steel plants of the world. There will be nothing of the kind more modern or to the eye of the mechanical engineer nothing more nearly perfect."

This is gratifying testimony to the great work which the Tennessee Company is doing in the development of Alabama's iron and steel interests. Backed by ample capital and ample skill, both of which are at the command of the United States Steel Corporation, it may be accepted as a certainty that the development of the properties of the Tennessee Company will be carried forward on a sufficiently large scale to make Alabama one of the great iron and steel centers of the world. In doing this the Steel Corporation will be tremendously benefiting not only every other iron interest in the State, but benefiting every business interest in the whole South.

THE SUN ALMANAC.

When the history of Baltimore and Maryland during the past generation comes to be written, a first source of information opening up many other lines of investigation will be the annual volumes of *The Sun Almanac*, the blue book for men of affairs in Maryland, and indeed, a sort of *vade mecum* for neighboring States. The edition for 1908, the thirty-third number of this valuable publication, maintains the high character for accuracy that has placed *The Sun Almanac* among other standard works of reference in many a library, and its 256 pages, in comparison with its 176 pages in 1902, indicate the expansion of its scope to meet the demands of the busy man in agriculture, in manufacturing, in politics and in every-day matters. Its statistics are brought down to the latest date possible, and while much of its information is for practical use at the moment, quite as much, if not more, is of a permanent kind that would be sought by the general reader in after years and by students in many lines.

The Isthmian Canal Commission is advertising through the MANUFACTURERS' RECORD for 4,500,000 barrels of Portland cement. The magnitude of this proposed contract is indicated by the fact that it is equal to nearly one-tenth of the total Portland-cement output of the entire country last year.

The Commercial Club of Montgomery has elected Messrs. A. G. Forbes, president; F. P. Glass, Alexander Rice and F. P. Chaffee, vice-presidents, and O. O. Nelson, J. M. Kennedy, George W. Jones, George A. Thomas and C. G. Zirkle, directors.

BARBOURSVILLE IMPROVEMENTS.**Building Undertakings Recently Completed or Planned.**

[Special Cor. Manufacturers' Record.]

Barboursville, Ky., January 27.

The past year has been a record-breaker in amount of money invested in various building and industrial undertakings in this city and vicinity, but the ensuing year promises to witness still greater activity along that line.

Local capitalists, among them John A. Black, propose to erect a three-story brick and stone hotel structure at an early date. Plans have been prepared, but no contract has been let.

The Barboursville Baptist Institute, which is controlled by the Southern Baptist Convention, proposes to erect two new dormitories at a cost of \$40,000 or \$50,000. No plans have yet been prepared. President Henry L. Pitman of this city will have plans prepared.

Union College, the central school of Methodism in Kentucky, is located here, and has just completed the expenditure of \$65,000 in the erection of two new halls. Barber & Klutz, Knoxville architects, prepared the plans. A Louisville firm has just completed the installation of a private electric-light plant, and W. W. Sawyer of this city has completed the installation of a private water-works and sewage system. The college proposes to install a private laundry, but neither plans nor estimates have been prepared.

There is promise of much new capital being invested in new manufacturing enterprises during the coming year. A glass factory is receiving some attention, and it is possible that inducements may be offered for such an undertaking. There is an excellent sand in this vicinity for such a purpose, and there is every indication that a gas belt of large extent may be proven. The Cumberland Natural Gas Co. of this city is expending a large sum in natural-gas developments, and already has a large production. It is hoped that the field may be extended by developments now being tried out. As natural gas is the most important feature in the manufacture of glass, if it is proven to be of vast extent in this section, as now seems probable, it is believed that glass factories may quickly be induced to locate here.

F. D. Sampson, president of the First National Bank and president of the Barboursville Commercial Club, proposes to install a large coal-mining plant on recently-acquired holdings in this vicinity. Seams are now being tested, and while no arrangements have been perfected for installing a plant, a railroad siding has been surveyed into the newly-acquired holdings, and it is probable that mines will be opened during the spring.

The largest of new industries is the Barboursville Brick & Tile Co., which has expended \$30,000 in the erection of one of the largest plants of the kind in the State. The company has completed the erection of a number of brick cottages for employees, who aggregate 40, and during the coming season will institute improvements.

A new utilities company will be formed during the next few days, following the purchase of the Barboursville Electric Light Co. by the Cumberland Ice & Beverage Co. Mr. M. P. Miller of this city now controls all three utilities, and will shortly consolidate them.

A party of Chicago capitalists was here last week inspecting coal and timber lands, and large investments will probably follow their visit. L. Kreutzinger, 2872 North Hermitage avenue, Chicago, was in the party, which will probably organize as the Golden Creek Coal & Lumber Co. The Cumberland Railroad is being extended in the direction of the Chicago men's holdings, and the development of the property,

in case an organization is effected, will occur at an early date.

The Rochester Cooperage Co., an Eastern organization with a branch office here, has completed the installation of stave mills on a tract of land five miles north of this city, and will turn out a large output.

Probably \$500,000 has been invested in the mining industry in this section during the past year. The situation just now is not so bright because of the low market brought on by the financial stringency, but conditions are expected to improve with the opening of the spring season.

W. S. HUDSON.

Activities at Augusta.

[Special Cor. Manufacturers' Record.]

Augusta, Ga., January 27.

The Augusta district has entirely resumed its normal business state. The banks are calling in their clearing-house certificates, and only a few are now in circulation, while those are being retired as rapidly as possible. All factories and industrial enterprises have begun working on full time again. The total receipts from the sale of cotton in one day alone last week in this city amounted to over \$140,000, and every pound sold at 12 cents or over. The cotton market is strong here, and although the farmers are slowly giving up their hold on the staple, there are still thousands of bales yet to be placed on the market. The farmers are hardly satisfied with 12-cent cotton, but are striving to obtain 15 cents.

The cottonseed market has greatly revived during the past two weeks, and seed are again selling at \$20 per ton at the mills. During the fall the seed sold for gone up again, and now is bringing about panic the price went down to \$12. During the past three weeks it has steadily gone up again, and now is bringing about \$20 per ton at each of the local mills. The grade is good, and the amount brought to the mills this winter promises to exceed that of any previous season. The four cotton-oil mills in Augusta are working every minute filling the orders which they have had for many weeks. During the panic the farmers were not willing to sell the seed for a low price, as they were able to hold their supply for higher prices and to get the necessary product the mill-owners are having to pay the farmers' price, which at present is \$20.

Work was started last week on the addition to be built to the United States arsenal in this city. A force of about 50 men, mostly unskilled, have already been put to work, and in a few days the skilled workmen will find matters progressed far enough for them to begin work. There is an appropriation of \$30,000 already available for this work, and an additional appropriation of \$300,000 will be ready later. The preliminary work of installing a branch electric line through the Government grounds is the character of the work now under way and will be finished early in February.

J. C. McAULIFFE.

Cement Manufacturers Form an Association.

The Association of Licensed Cement Manufacturers was organized in New York on January 9 by the North American, Atlas, Alpha, American, Lehigh, Lawrence and Vulcanite Portland cement companies, and various other important companies in the East and West, including the Dexter, Edison, Nazareth, Pennsylvania, Penn-Allen and Catskill, all of which have secured licenses under the Hurry and Seaman, Edison, Carpenter and other patents controlled by the North-American Company. Other applications for membership have been presented and are under consideration. The officers of

the association are A. F. Gerstell (vice-president and general manager of the Alpha Portland Cement Co.), president; Conrad Miller (president of the Dexter Portland Cement Co.), vice-president, and Alfonso De Navarro (vice-president of the Atlas Portland Cement Co.), secretary and general manager.

The purposes of the association include the general betterment of the mechanical and chemical processes used in making cement, the improvement of the quality of cement, dealing with matters of traffic and shipment and the establishment of an association laboratory for technical tests and experiments. It is understood that all existing and properly-equipped cement plants will be granted licenses and admitted to membership. Infringers of the patents above referred to will be rigorously prosecuted.

Nearly 70 per cent. of the output of the Portland-cement industry in this country is already represented by the association, this being double the annual production in Great Britain, the pioneer Portland-cement-manufacturing country, equal to the combined output of England and France, and in excess of that of Germany.

The Association of Licensed Cement Manufacturers, with its facilities for tests and experiments, its investigation of mechanical and chemical problems, its establishment of standards of quality and its assistance in obtaining proper shipping facilities and rates, is expected to be of great benefit to its members.

MACHINERY AND SUPPLY MEN.**Plans for Their Meeting in Richmond, Va., Next Spring.**

A joint meeting of the committees appointed from the American Supply and Machinery Manufacturers' Association, the National Supply and Machinery Dealers' Association and the Southern Supply and Machinery Dealers' Association was held at Richmond, Va., last week to formulate a program for the joint annual convention of these three associations, to be held in Richmond May 13, 14 and 15 next.

The program mapped out is one that has many radical departures from any previous meetings held either jointly or separately by any of these organizations, and will, in the opinion of those who made up the committees, result in eliminating all those features which have been stumbling-blocks in the way of complete success attending the work of previous large conventions.

The program adopted, both for executive sessions of each association, as well as that for the joint sessions of all these organizations, fairly bristles with matters of vital moment to the interests of all those represented in the memberships of these bodies of supply men and manufacturers.

Speakers of national reputation, whose connection with the commercial life of the nation will make their views of the greatest moment to all attending the convention, will be selected to address the joint meetings.

The speakers drawn from the memberships of the associations will make addresses on live topics of vital importance, and it is felt by the committees that when their program is ready for publication not only will every member of each organization feel that he cannot afford to be absent, but the great questions that are to be thrashed out at the convention will instill such wide interest that everyone in the trade who is eligible to membership in the National Supply and Machinery Dealers' Association or the Southern Supply and Machinery Dealers' Association, or as a manufacturer doing business with the members of these two bodies, and who would be eligible to membership in the

American Supply and Machinery Manufacturers' Association, will attend in person or by an accredited representative.

The complete program will be ready for publication early in April, and will be sent to all members of these associations fully a month before the convention.

The interest shown in the coming convention is manifested by the large number of reservations already made for rooms in the Hotel Jefferson, Richmond, Va., where the convention will be held. The committees who met to arrange the program were made up as follows:

American Supply and Machinery Manufacturers' Association—M. W. Mix, Dodge Manufacturing Co., Mishawaka, Ind.; E. H. Hargrave, Cincinnati Tool Co., Cincinnati, Ohio; C. F. Aaron, New York Leather Belting Co., New York city; F. A. Hall, Yale & Towne Manufacturing Co., New York city; D. K. Swartwout, Ohio Blower Co., Cleveland, Ohio; W. M. Hood, Lunkenhimer Company, Cincinnati, Ohio, and F. D. Mitchell, secretary-treasurer, New York city.

National Supply and Machinery Dealers' Association—George Puchta, Queen City Supply Co., Cincinnati, Ohio, and A. T. Anderson, secretary-treasurer, Cleveland, Ohio.

Southern Supply and Machinery Dealers' Association—J. C. Miller, Miller Supply Co., Huntington, W. Va.; Alvin M. Smith, Smith-Courtney Company, Richmond, Va.; Hunter B. Frischkorn, Hunter B. Frischkorn, Richmond, Va., and Levin Joynes, Southern Railway Supply Co., Richmond, Va.

Developing White River Power.

The MANUFACTURERS' RECORD advised that the Interstate Hydro-Electric Light & Power Co. is proceeding with its developments of the water-power of White river near Eureka Springs, Ark. This company's developments are located near Eureka Springs, where the White river makes a horseshoe bend with a natural fall of 22 feet; its tunnel is 2100 feet long and its dam 180 feet long, constructed on solid rock bottom and abutting on solid rock.

At one point the company is installing an electric plant with a capacity of 500 horse-power and a sawmill with a daily capacity of 12,000 feet, the head and tail race and wheels being set so that production of lumber can begin as soon as the mill machinery arrives. Further installations of electric machinery will eventually generate 5000 horse-power for transmission by electricity to mining and manufacturing plants.

While shooting its forebay the company located veins of zinc blend and galena, and later on intends to develop this proposition. The Interstate Hydro-Electric Light & Power Co.'s officers are: U. G. Young, president; J. L. Morton, vice-president; Joseph M. Sanders, treasurer, and W. D. Chesney, secretary, of Rosedale Station, Kansas City, Kan. Its capital stock is \$300,000.

Water-Power Development Progressing.

The Southern Power Co. of Charlotte, N. C., which has been frequently referred to by the MANUFACTURERS' RECORD in connection with big water-power developments, is now making steady progress with the construction work at Rock Creek, N. C. Nearly 50 per cent. of the dam has been completed, and while 350 men are now employed, the company is endeavoring to double that force. This Rock Creek development is expected to be completed by September, and will transmit 40,000 horse-power by electricity. The Great Falls plant, two miles from Rock Creek, is a duplicate.

SOUTH'S CONSERVATISM REASSERTING ITSELF.

(Written for the Manufacturers' Record.)

It is most gratifying to note the change in sentiment on the part of the press and people of the South toward railroads and other corporations engaged in development work from what it was three or four months ago. It is a change as noticeable as the difference between disease and health.

The present manifestations of changed sentiment are healthy, and mark the normal workings of the strong, vigorous, sensible manhood of the South, while the sentiment that now appears to be giving way could be nothing less than the result of the false teachings of agitators, bound, from the very nature of the objects to be gained by irresponsible leaders, to produce a diseased condition in the body politic and paralysis of industrial growth.

The writer traveled through the Central and Eastern South in September and October, and almost every man with whom he talked either took the position outright that the railroads must be curbed or else appeared half-hearted in questioning the wisdom of anti-railroad legislation. If any man at that time was bold enough to disagree with the action of the various State authorities in passing bills that were inimical to corporate existence, he qualified any statement he might make with the remark "that there has been undoubtedly wrong on both sides, and while the legislation enacted might be too severe, it could not be denied that railroads and corporations were largely to blame."

A trip just ended that extended over practically the same ground that was covered four months ago reveals such a sensible and wholesome change in sentiment that it is extremely gratifying, to say the least, to those that have the best wishes of the South and its great development at heart. On this trip I talked with at least 150 men, and I suppose counting those that I met on trains the number would run to 200, and I did not find a single individual who hesitated in the slightest degree to say that no railroad could live with the rates in force that legislators were trying to make them adopt. Every man was severe in his denunciation of the unwise policy that has helped to bring the business of the South to a pass that is in such contrast to conditions of six months ago. These business men (for nearly all with whom I talked are business men with large interest at stake, who feel the responsibility of the work that has been entrusted to them, and have seen, in spite of high-priced cotton, abundant crops, with their order-books bulging with unfilled orders, a condition quite the reverse of this presented almost in a night) realize that the South, most of all sections, needs railroad development, needs better terminal facilities, double tracks, and, above all, safety in the handling of its trains. They realize that the South needs capital brought in from the outside, and can give that capital better return for its investment than any other section on the face of the globe, and it has been brought home to them that these things, so vitally necessary in the growth and handling of their own business, are not to be gained by a reduction in railroad rates or the passage of laws that drive capital away.

No one pretends, of course, that the recent depression which swept over the country is wholly due to hostile legislation, but everybody knows that that was the chief cause. The point now, however, is that this business slump must be made, if possible, to run a short course, and one of the surest ways to stem the tide, as all sensible men know, is to quit agitation.

The future is bright with promise. Al-

ready Texas takes the lead by saying through her Railroad Commission that now is no time to reduce passenger rates. The decision of the Supreme Court of Pennsylvania that a two-cent rate in that State is "illegal because it is unjust" will have a far-reaching effect. North Carolina in the special session of its Legislature called by Governor Glenn is expected to recognize that a population to the square mile only one-fourth as large as Pennsylvania's will hardly create enough traffic for the railroads to justify near as low a rate as Pennsylvania.

A North Carolina legislator called my attention the other day on the train to the great increase in the value of farm lands and town lots in the "Old North" State since the memorable efforts made years ago by the State to induce railroads to help develop the waste places. A wave of railroad building swept over North Carolina then, and the State not only used every proper means to help finance railroad undertakings, but went down in its own pockets and built a line of its own.

Since then farms that sold from \$5 to \$10 per acre have quadrupled in value; town lots that were valued at a few hundred dollars are now worth many thousands.

This legislator pertinently asked whether this increase in the value of real estate was a watered valuation or did it mean greater prosperity to the people of North Carolina with an increased taxable basis for the State treasury to count on that would in comparison make the old figures before the railroads came in with their so-called watered stock look sick?

Instead of talking so much about watered stock, which in reality does not exist to the extent of one-tenth of what the agitators have made the public believe, wouldn't it be fairer to grant that the men who have put their money in railroad building and waited years for something to come from it are entitled at least to a profit a little above what might be expected from a 3 per cent. Government bond?

But we are on the threshold of better times. The South is going to show the world that investments within her borders offer attractions not found elsewhere. The \$500,000,000 that is needed to put Southern railroads on a proper basis will ultimately be found beyond a doubt, because legislators are coming to their senses again, and, in the meantime, business is already picking up. Manufacturing plants and jobbers are finding a much better demand for their products than a few weeks ago. Many of Birmingham's huge furnaces which were stark and cold a little while back have started up again, and "as iron goes so goes business."

A trip on the railroad shows very few smokeless chimneys. Perhaps we haven't had such a very great industrial panic after all. Certainly nothing like 1893. May the good Lord forefend!

Tired of Agitation.

These comments, made by a member of the MANUFACTURERS' RECORD staff, are not the result of a set purpose to assemble any selected group of opinions, but are based upon casual talks with intelligent men met in traveling through a portion of the South on other business. That they reflect, however, the stirrings of a strong reassertion of the South's conservatism, evidence of which is appearing from many directions, cannot be successfully gainsaid. For instance, Mr. J. Bascom Mercer of the Mercer & Evans Company, Wilmington, N. C., writes:

"Our State Legislature is now in extra session, and we sincerely hope it will cor-

rect as far as possible the errors made a year ago as regards the railroad-rate question, and after having completed the compromise measure relative thereto will adjourn without undertaking to pass any new laws for which the people are not prepared. We are tired of so much agitation down here."

Equally forcible is Mr. Mercer's communication to the *Wilmington Morning Star*, as follows:

"The duty of the Governor is plain. He has called the Legislature together for the purpose of completing the railroad-rate compromise. Let him see that this is done promptly and the Legislature adjourned at once. The duty of every member of the Legislature, both in the Senate and House, and of whatever political party, is also plain. Let them meet and at once proceed to fix the railroad rate at two and one-half cents per mile (the very figure that many members wanted before) and pass such other measures as are necessary to make the rate compromise complete; then immediately adjourn. The Commonwealth is not prepared for any new legislation at this time. We sincerely hope that no mistake will be made by undertaking anything new. The people are tired, and want rest from so much agitation."

A healthy North Carolina conviction is also expressed in an editorial of the *Evening Chronicle* of Charlotte on the recent speech by Mr. E. W. Sells of New York on corporate and public business conduct. It says:

"In deplored the effects of restrictive legislation against the railroads, Mr. Sells says:

"The two greatest business interests of the country are represented by the railroads and by agriculture, and they are particularly interrelated. Everything that tends to restrain capital from investing in railway enterprises; everything that holds back the extension of railway enterprises into new and undeveloped country checks the settlement of new farms and the production of new crops."

"These are facts of which there has been more or less demonstration in this and other Southern States in recent weeks. It is also true that the manufacturer finds his interests facilitated by the erection of his factories and shops in old and closely-settled communities where the transportation problem is already fully solved. That the politicians have gone too far in their war on corporations is evidenced today in the extra session of the North Carolina Legislature."

Longued for Sanity.

In its issue of January 23 the MANUFACTURERS' RECORD commended briefly the purpose of the Tennessee Industrial League recently organized. The president of the league, Mr. T. F. Bonner, one of the leading business men of Nashville, has set forth in no uncertain tones the proposed scope of the organization. He says:

"The idea originated in a company of about 15 of Tennessee's most prosperous and progressive business men, none of whom, so far as I know, has ever held an elective office, and I am sure none of them ever expect or desire to hold one. There was not present a railroad man, nor was there present a man that is in any way connected with a public-service corporation. We believe the time has come when every citizen, be he merchant, manufacturer, farmer or laborer, should do all in his power to induce men of wealth to invest their money in the South. We can do this in no better way than to eliminate the political demagogue and the professional agitator, and send to our legislative halls conservative, cautious, broad-minded men; men that understand that the farmer

and laborer can only be prosperous when the merchant and manufacturer is prosperous; men that realize that great industrial and manufacturing institutions can only be successful in proportion to their transportation facilities. The South has been set back at least 10 years and has lost hundreds of millions of dollars on account of drastic and radical legislation. I believe that the great majority of the men that have been a party to this destructive legislation are honest men, but they have been following the leadership of reckless and radical politicians without stopping to count the cost. I have an abiding faith and a supreme confidence in the integrity and intelligence of the people of Tennessee and the South, and I believe a vigorous campaign of education is all that is necessary to bring them back to that conservatism that is so necessary to our continued prosperity. This is one of the purposes for which the Tennessee Industrial League was organized.

"It seems to me that for the past few years this reckless and radical element have trained all their guns upon everything that had stamped upon it progress and prosperity. This has been especially true of corporations of all kinds. It has become necessary several times in recent years for manufacturers and business men to go to the Capitol to explain to committee and representatives the ruinous effects of pending legislation—legislation so drastic and so radical that if it had been permitted to become operative would have done irreparable damage to the great industrial interests of the State. These measures are usually championed by either men that expect to make political capital for themselves by posing as the friends of what they are pleased to term 'the common people,' or by men that expect to reap personal benefits in the way of office or fees. The farmer and the laboring man are the classes that are usually appealed to by the demagogue and agitator, not that they are less intelligent than other men, but because their vocations are such that they do not have the time to give the same thought to these matters that men in commercial pursuits have. When they stop to think they realize that they are as much interested in the prosperity and success of the industrial, manufacturing and commercial institutions of the country as the men who have their money invested in them. The mechanic and laborer knows that the more prosperous the manufacturer is the more labor he will need, and the better wages he can pay. The farmer knows that the more labor that is employed and the better wages they make the greater demand there is for his product and the better prices it will bring. I think this has been so forcibly impressed upon the country in the last two months that it will not soon be forgotten.

"The ceaseless and relentless warfare that has been so mercilessly waged against railroads in some of the Southern States for the past two or three years has wrought so much wreck and ruin and has caused the loss of so much wealth to the people of this section that it seems hardly necessary to call attention to this great evil. That railroads are the most important factors in the upbuilding and development of a country cannot be questioned.

"That railroad building in the South within the past decade has not kept pace with the growth and development of the country goes to show that capital invested in railroads does not bring as favorable returns as money invested in other channels of commerce, or that there has been so much agitation and hostile legislation that men having money to invest do not want to risk it in railroads. These conditions must be changed if we do not want

to check the development and prosperity of the South.

"That we have the richest country in undeveloped resources on earth no one can doubt. That we need badly more railroad mileage in Tennessee cannot be denied. Think of a State like this with 14 counties in which no railroad runs, and many others with but a few miles of road, and not a single county in the State that has railroad facilities equal to its needs. Then should it not be the policy of the State to encourage in every legitimate way both the building of new railroads and the improvement and better equipment of those we already have? I admit that railroads as well as individuals sometimes disregard the 'Golden Rule,' therefore I recognize the importance of throwing around railroads and all public-service corporations such legitimate restrictions as will safeguard the people's rights. But at the same time the State cannot afford to commit itself to a policy that will halt railroad building and expansion, or that will in any way hamper industrial development which is so necessary to the progress and prosperity of the country.

"Let Tennessee lead in the great fight for conservatism. It should stand as a mighty bulwark against the radicalism of the day, and prove itself a leader in protection to property, and thus make for itself a reputation that will echo and re-echo from the rivers to the ends of the earth. Such a course would bring untold honor and more wealth than any other State in the Union has ever known. It is very unfortunate, yes, I think it little less than a calamity to the State, that a railroad-rate war should be brought on at this time, at a time when both the passenger and freight traffic has been so reduced that all the railroads of the country have been forced to lay off thousands of employees, and many of them have been compelled to reduce the wages of those retained. At a time when conditions are such that one of the largest systems in the South has been forced into a receiver's hands, and rumors are afloat that others will follow, there was no demand from the people at this time for such a move.

"Unquestionably we have the most perfect system of government of any country on earth; at the same time we must admit that there is something radically wrong when men whose greatest interests in the country are the emoluments and honors of office can bring wreck and ruin to the industrial and commercial interests of the country to such an extent that the wheels of commerce are stopped, thereby throwing out of employment tens of thousands of honest laborers whose wages furnish bread to hundreds of thousands of helpless women and children. It was for the purpose of minimizing occurrences like these that the Tennessee Industrial League was formed. We therefore call upon the honest, intelligent, conservative citizenship of the old Volunteer State to awake to their individual responsibility and face the issue squarely.

"In our madness we may destroy the railroads and great business interests of the country, but we, the people, are the ones who shall suffer most. It is a mistaken idea that the industrial and commercial interests of the State are asking, or have every asked, so far as I know, for legislation favorable to their special interests; they only ask that no laws be passed hostile to the business interests of Tennessee, as has been attempted several times within the past few years. The time has come for a return to a safe and saner policy; the great conservative forces of this country have learned a valuable lesson; they will no longer listen to the siren song of the agitator, but will turn their attention to the upbuilding and development of this rich and fertile country. This

will guarantee protection to capital. We will then see progress and prosperity in Tennessee as we have never seen before."

In publishing this interview with Mr. Bonner, the *Nashville American* says:

"President Bonner of the Tennessee Industrial League sets forth in an article elsewhere in this paper the objects and purposes of the league, its origin and the need and value of the work it is seeking to do. The league is composed of business men, men of affairs, doers and movers in the world of trade and commerce, finance and manufacturing. They are working for better methods, for the attraction of capital, a higher grade of politics, better roads and markets, more home industry and less cheap and costly politics, which has been so costly to the South. * * * The Tennessee Industrial League's membership includes leading business men all over the State, and it ought to exert a wholesome influence in behalf of the State's industrial development."

Other light upon Tennessee is thrown by the *Bristol Herald-Courier*, which says:

"It appears to this newspaper that the Tennessee Railroad Commission has waked up at an inopportune moment and done an unwise thing.

"While neighboring States, in the hands of men whose mistaken and misdirected zeal has smacked of political demagogery, have been making a spectacular and hurtful war on the railroads, Tennessee has declined to join in the agitation and move hastily against these interests and the interests of the people of the State.

"Recent developments have fully demonstrated the wisdom of this conservative course. For the sake of securing a lower passenger rate, which can affect beneficially but a small per cent. of the people, certain States have enacted legislation that is having a harmful effect upon everybody. Railroad values have been disturbed; capital available for railroad improvement and extension is unobtainable; railroad development has been arrested, and last, but still a most important item, thousands of men have been laid off by reason of the railroads having been forced to adopt a policy of retrenchment. He says:

"If railroads build cities and communities and enable them to prosper, which is admitted, whatever interferes with railroad operation and development necessarily interferes with the development and prosperity of the cities and communities which they serve. This being true, it is rather difficult to understand the readiness with which the Legislatures of certain States strike at these interests, unless it is to be explained on political grounds. Already these States are beginning to discover their mistake, and the pendulum has started on the backward swing.

"It is to be hoped that Tennessee will not now assume a hostile attitude toward the railroads, but will proceed in an orderly way to secure from them such concessions as seem due the State. The fact that the railroads of North Carolina and Georgia have agreed to a compromise passenger rate of two and one-half cents leads the people of Tennessee to believe that the same rate should be granted them, and recently Governor Patterson issued a call for the presidents of the railroads operating in Tennessee to meet and discuss the situation with him. This conference is to be held at Nashville next Tuesday.

"Immediately after Governor Patterson issued his call the Tennessee Railroad Commission promulgated an order to the effect that on April 1 all railroads in Tennessee shall put on a passenger rate of two and one-half cents a mile. Hence the conviction that the commission waked up at an inopportune time and did an unwise thing. It succeeded in keeping its head until after Governor Patterson issued his call. It might at least have waited a week

or two longer, until the conference was held. Then, if the conference was not productive of satisfactory results, the commission would have had plenty of time to issue its low-rate order if that seemed the proper thing to do.

"That the commission did not await the result of the conference arouses a suspicion that some politics is involved, and we doubt if the people of Tennessee are in a humor for a game of that kind. They have seen enough of it in neighboring States, resulting in special sessions of Legislatures to reduce rates, and other special sessions to raise them again."

Feeling the Pinch.

One of the most suggestive expressions that has come out of Georgia is an open letter to the chairman of the Georgia Railroad Commission from Jehu G. Postell, who appeared last spring before the commission to protest in the interest of labor unions against the proposed reduction of passenger rates of the railroads. He recalls the position of the unions as it was beyond the power of the railroads to lessen the prices of material or to decrease the amount of material necessary for the legal maintenance of the roads, a reduction of earning capacity would force the roads to reduce the number of employees or to reduce their wages, thus affecting the wage-workers first and then the business interests, and that such a reduction would be the signal for a reduction in wages all along the line in every department of business. He says:

"The then commission refused our earnest appeal and reduced the rate. The labor unions then were in a very prosperous condition. Every union man and non-union wage-worker was working full time and at better wages than they had ever received except in a few instances."

Contrasting conditions then and conditions today, Mr. Postell says:

"Now, read over carefully the predictions contained in the paper presented by the labor union of Macon. Hundreds of these good citizens of the great State of Georgia are idle. Hundreds more are working on short time. Many have shaken the dust of their native State from their feet and taken up their abode elsewhere. They have been driven from their homes and have gone into States where the politicians are not fighting the union folks and the business interests, but who are working to create and not destroy interests through which they earn daily bread for their wives and little ones. God only knows where this is to end. It will take years to undo what has been done already. We, the wage-workers, will just have to bow down to the powers that be. Wait and suffer until they get a chance to vote again. Then the farmer will see 15-cent cotton and perhaps the wage-worker find employment at living wages."

Other significant utterances from the daily press of the South follow:

[*Hattiesburg (Miss.) Daily News.*]

Mississippi has thus far developed itself, but the State has now reached a stage in its development when administrative measures must decide if the progress shall continue or if discouraging inertia shall foil our individual efforts.

Mississippi, with its unexplored and unexploited latent wealth, with a soil promising the utmost reward to its tiller, with a climate unexcelled even by the Pacific Coast, which sells it at a high price, this State, we repeat, stands in need of money to develop the resources, of husbandmen to till the soil, of transportation facilities to carry to market the results of industry. With a constructive policy, and even without holding out unusual inducements, this State offers openings which capital would seize eagerly if proper assurance be given that its legal rights shall be respected. Un-

fortunately, neighboring States have given way to a hysterical animosity toward capital and its enterprise. Georgia, Alabama and other States are feeling the result of this unreason, and will repent at leisure. Mississippi wants none of this. It does not desire to offer inducements which will be repudiated, nor does it desire the honor of repudiating such as have been held out. It does desire, however, that it be known throughout the United States that capital and enterprise from elsewhere shall enjoy the same rights and privileges enjoyed by domestic capital and enterprise.

So long as our lumber is in demand and there are cars to move it we cannot fail of good times. The average of \$12,000,000 per annum comes to this section. Have we during the past quarter been in receipt of a quarter of that amount? By no means. The loss of \$1,000,000 or more per month means much to this section; we know it by experience. And what is the cause of it? The unfortunate railroad and corporation baiting which afforded temporary amusement to other States.

The railroads located and operating in Mississippi are anxiously watching what the State is going to do. They are here and cannot move. To that extent they are at our mercy. But let us not be deceived. There is a magnetic undercurrent between all corporations and investors in corporations. Let us harass, vex or obstruct the railroads we have, and we may bet dollars to peanuts that not another railroad will be constructed in the next 10 years. On the other hand, let us show due regard for the rights and privileges of the railroads and other corporations within the State, and we may take heavier odds that they will induce other capital to enter one of the few level-headed Southern States.

We need their help—why deny it? They can do more to advertise effectively the resources and advantages of this State than the systematic efforts of all Mississippi's commercial bodies can accomplish. With sincere admiration for the Commercial Club and its energetic secretary, they know that nothing of moment can be accomplished without the co-operation of the transportation companies.

It is plain arguments like these that strike home.

[*San Antonio (Texas) Express.*]

The Dallas *News* congratulates the Railroad Commission, the railroad companies and the people on the "wise and timely conclusion" of the passenger-rate contention, and adds:

"The time is not ripe for cutting down the revenues of the roads in Texas. The people of Texas need other things at the hands of the railroads more urgently than they need cheaper rates. They need more mileage, more reliable train service, better tracks and better terminal facilities. They would rather pay more and have these than have the rates cut and see the roads still further crippled. All this is an elemental business proposition, and the people of Texas have not lost their business sense."

This sentiment will be generally echoed by the business interests of Texas and by the people generally who take a rational view of economic questions rather than a prejudicial one. The railroads are the arteries of commerce, as essential to its existence as are the arteries of the human body to life. The people need them, and there is such unity of interest between the railroads and the people that there ought to be close intimacy and perfect co-operation. To this end the railroads should cultivate the people and on all occasions show a disposition to deal fairly and justly with them and to do everything in their power to break down the barrier of preju-

dice which was erected years ago by a system of railroad management and administration that was unbearable.

It was never intended that the Railroad Commission should oppress the railroads or treat them in any way prejudicial to their rightful interests. At the same time it was expected of the commission that it would protect the people's interests and

not permit them to be imposed upon by the railway corporations. This the commission has done, and may continue to do, but always in a spirit of fairness and without a suspicion of hostility. It looks now like a harmony basis has been reached, and the railroads, the people and the commission ought to get along nicely henceforth without any friction whatever.

Expanding Activities of American Cement Users.

[Special Correspondence

Buffalo, N. Y., January 27.

While the opening of the fourth annual convention and exhibition of the National Association of Cement Users was outlined in this correspondence last week, and this letter tells of its later details, neither or both of them can attempt to paint a word-picture sufficiently strong to convey to those acquainted or unacquainted with cement and cement products who could not attend the splendid success which has crowned every feature, the broad influences which these annual affairs have upon every phase of the industry and the indications in them of a wonderful and ever-expanding future.

It is said of the American people as a whole that they have to be shown to be convinced. That is just what these annual exhibitions are doing—showing and convincing folks that all the wonderful things they have heard or read about this material are true by producing the goods before their very eyes. And right here it can be said that these shows are doing more to persuade belief than it would be possible in any other way, and every city in which they are held immediately responds to their influence by adopting cement on a broader scale than formerly. Take this very city of Buffalo as an example. On the opening night the attendance at the Cement Show was very slim, and to arouse enthusiasm Tuesday night was set aside as "Buffalo Night." Show cards announcing the fact were scattered all over the city, and thousands of complimentary tickets of admission were issued, with the result that that night brought a crowd which taxed the very limits of the spacious armory. Once there, they showed deep interest in its every feature, and the exhibitors almost wore themselves out operating their machines and talked themselves hoarse explaining their advantages. On leaving it was particularly noticeable that nearly every one had an armful of literature on cement products for subsequent perusal. After this notable night on both afternoons and evenings to the very close the hall was always well filled, and this was especially significant in view of the fact that an admission of 25 cents was charged to all non-members of the association.

In all there were some 120 separate and distinct exhibits, completely filling the hall, and the range of the exhibits extended almost through every phase of the industry, from the manufacture of cement itself to the finished products of the cement-block machines, together with all kinds of necessary equipment and accessories. The exhibits, too, represented a participation on the part of practically every well-known cement or cement product firm or corporation in the country, and this in itself is strongly indicative of the great importance and influence which this annual event has in the eyes of those interested. In other words, it is considered the one real event of the year in cement circles, and they come to it, many of them from great distances and at great expense, in order to show to the cement users themselves the advances and improvements which have been brought forth in one year. Many of the improvements, too, are noteworthy,

and indicate the deep study which both technical and practical men of the industry are devoting to its advancement and adaptability.

When one stops and thinks that in the year 1907 about 50,000,000 barrels of cement were made in the United States and nearly every barrel was consumed, and then is told by these people that the use of cement is still in its infancy, what, indeed, must one look to in the future? Those who attend these exhibitions can form some sort of an idea, but even they express surprise at the results that are being accomplished each year in some new new field. When one takes a broad survey of this year's show it is safe to say that there is no field of construction work of any kind in which this material cannot be used, not only with results in every case equally as good as the former material used, but in most of them giving even better results in adaptability, durability and economy.

Have you, Mr. Reader, ever attended one of these Cement Shows? If not, if there is at any time in the future such an opportunity presented do not fail to go, because it is safe to predict that not only will you be intensely interested, but you will learn something which will be to your great advantage, no matter what may be your calling or occupation in this life. Everybody in Buffalo knew that the Cement Show was there last week, because in all parts of the city and on all of the street cars were signs telling of the event and where it could be found. As the old Sixty-fifth Regiment Armory was approached by day a large sign stretched across the street, and by night an electric sign, directed all visitors to it. Once inside, the layman was at first bewildered, on account of the great noise of the many unfamiliar machines in operation, while those who knew these exhibitions from past experience approached as if going to a feast to see what new improvements were being offered this year. All and more than was expected was before the eye and awaiting exploration.

Here and there were seen most of the Portland-cement manufacturers of the country, including the Atlas Portland Cement Co., New York; Universal Portland Cement Co., Chicago, Ill.; Edison Portland Cement Co., New York, N. Y.; American Cement Co., Philadelphia, Pa.; Vulcannite Portland Cement Co., Philadelphia, Pa.; Lehigh Portland Cement Co., Allentown, Pa.; Pennsylvania Cement Co., New York, N. Y.; Sandusky Portland Cement Co., Sandusky, Ohio; Whitehall Portland Cement Co., Philadelphia, Pa.; Mobile Portland Cement Co., Chicago, Ill.; Berkshire White Portland Cement Co., New York, N. Y., and Blanc Stainless Cement Co., New York, N. Y. These companies represent the bulk of the cement output of the country, and in their booths they were showing samples of raw materials and finished product and photographs of their plants and of important structures in which the different brands were used, while the merits and peculiar features of each were explained by those in charge and illustrated literature distributed which further told of the broad adapta-

bility of the material. In passing it may be said that no others are doing more to broaden the field of usefulness of cement than the manufacturers themselves, and emphasizing this, aside from their individual publicity work, is the work of the Association of Portland Cement Manufacturers, which also had a large booth here. This association showed the original drawings submitted by the prize winners for architectural designs for low-priced dwellings of cement in the competition which the association held last year. It also distributed pamphlets of both technical and practical natures on important tests and results obtained from the use of cement in many different fields.

Another important branch of the industry which was well represented by some of the leaders was that of reinforcing metal for reinforced-concrete construction, and these included the Trussed Concrete Steel Co., Detroit, Mich.; Expanded Metal & Corrugated Bar Co., St. Louis, Mo.; General Fireproofing Co., Youngstown, Ohio; Buffalo Steel Co., Buffalo, N. Y.; American System of Reinforcing, Chicago, Ill.; American Steel & Wire Co., Chicago, Ill.; International Fence & Fireproofing Co., Columbus, Ohio; Northwestern Expanded Metal Co., Chicago, Ill., and Turner Construction Co., New York, N. Y. In all kinds of large and important work, including buildings, bridges, viaducts, sewers, locks, dams, and, in fact, all classes of general construction work it has been this important allied branch of the cement industry that has achieved the most notable and wonderful results, and today there are monuments to their efforts in the way of some of the most important structures and construction work of a varied character erected in all parts of the United States. Indeed, so noteworthy have been the results attained that for fire protection, durability, strength and other important features this method of modern construction bids fair to supersede the older ones heretofore used.

The exhibits of these various companies were most interesting, and their booths were always surrounded by those seeking information. Not only did they show and explain their different methods of reinforcing, but they also had numerous photographs hung around their booths which illustrated all kinds of work successfully accomplished. Many of them also distributed in the way of souvenirs polished sections of their metal to be used as paper weights, while catalogues and other important reading matter were also given out.

Of all the exhibits, the most varied, the most numerous and the most convincing were those of the many concrete-block and brick-machine manufacturers—varied and numerous because, perhaps, there are more engaged in this branch of the industry than in any other, and convincing because they made their products before the very eyes of the visitors. Indeed, many of those in these lines brought only their machines and equipment with them and built their booths out of their products after they got there, and this in itself was a strong card in their favor. The booths of these manufacturers were always surrounded by large crowds eager and hungry after information, and they got it, all they wanted, by demonstration, by talking and by literature, and none went away hungry.

This branch of the industry is one of its most interesting ones, because there seems to be no end to the varied and important products which can be made from them. In the construction of a dwelling-house and its surroundings, for instance, various exhibitors would make for you bricks or blocks, whichever you preferred for the walls; steps, porches and porch columns of different ornamental designs, roofing tile, ornamental blocks for archi-

tectural effects, ornamental walls for surrounding the house, flower urns, tiles for water supply and drainage, and, in fact, they could supply you with cement or concrete substitutes for almost every kind of material you have been accustomed to use heretofore.

The manufacturers of these blocks and bricks are divided into two classes, viz., those made by either hydraulic or machine pressure and those made by hand tamping. In the former class were shown the exhibits of the Perfection Block Machine Co., Minneapolis, Minn.; Fisher Hydraulic Stone & Machinery Co., Baltimore, Md.; Queen City Brick Machine Co., Traverse City, Mich.; Hydraulic Concrete Machine Co., Buffalo, N. Y., and Somers Bros., Urbana, Ill. In the latter class were those of the Miracle Pressed Stone Co., Minneapolis, Minn.; Ideal Concrete Machinery Co., South Bend, Ind.; P. B. Miles Manufacturing Co., Jackson, Mich.; Anchor Concrete Stone Co., Rock Rapids, Iowa; Ashland Steel Range & Manufacturing Co., Ashland, Ohio; Besser Manufacturing Co., Alpena, Mich.; California Artificial Stone Supply Co., Toronto, Ontario; Cement Machinery Co., Jackson, Mich.; Francisco Block Machine Co., Columbus, Ohio; Burwell Manufacturing Co., Bradley, Ill.; Century Cement Machine Co., Rochester, N. Y.; Hayden Automatic Block Machine Co., Columbus, Ohio; Multiplex Concrete Block Machine Co., Toledo, Ohio; Ray Manufacturing Co., Philadelphia, Pa.; Runyon Concrete Machinery Co., Canal Dover, Ohio; Star Cement Block Machine Co., Dallas City, Ill.; Thomas Cement Construction Co., Joliet, Ill.; Thompson Cement Stone Co., Gowanda, N. Y.; Wettaufer Bros., Buffalo, N. Y.; Peerless Brick Machine Co., Minneapolis, Minn.; Sandford & Painter Company, Toledo, Ohio, and International Brick Machine Co., Binghamton, N. Y.

Another of the important phases of concrete construction is that of mixing the ingredients which are to compose the finished product. Unless this is done properly only poor results will follow. Heretofore this was done by hand, but now it is done by machines, of which there was a great variety shown here. These represented the latest thoughts in this class, and those interested could judge to their own satisfaction the exact merits of each and their adaptability to their own peculiar work, because nearly every one of them was in operation. Two distinctive classes of these machines were shown, one being the batch type and the other the continuous-mixer type. They ranged in size from the small hand mixer to the largest size operated by engines or motors. The result which all mixer manufacturers aim to accomplish is to build a machine which will mix the aggregates in the most thorough manner, and it was wonderful and of great interest to study the many and ingenious designs and the mechanical operations of the different ones shown.

Among those on exhibition here were the mixers made by the Koehring Machine Co., Milwaukee, Wis.; Ballou Manufacturing Co., Belding, Mich.; Eureka Machine Co., Lansing, Mich.; Fillmore Machine Co., Fillmore, N. Y.; Kent Machine Co., Kent, Ohio; Knickerbocker Company, Jackson, Mich.; R. Z. Snell Manufacturing Co., South Bend, Ind.; United Cement Machinery Co., Plain City, Ohio; International Fence & Fireproofing Co., Columbus, Ohio; Ideal Concrete Machinery Co., South Bend, Ind.; Buffalo Concrete Mixer Co., Buffalo, N. Y.; Cement Tile Machinery, Waterloo, Iowa; Century Cement Machine Co., Rochester, N. Y.; Ashland Steel Range & Manufacturing Co., Ashland, Ohio; Hayden Automatic Machine Co., Columbus, Ohio; Clover Leaf Ma-

chine Co., South Bend, Ind., and Chicago Concrete Machine Co., Chicago, Ill.

The construction of all kinds of tile was also well shown, and in drain-tile machines which attracted particular attention was the Schenk tile machine as made by the Cement Tile Machinery Co., Waterloo, Iowa. This machine is automatic in action from the time the aggregates are poured into the mixer until the finished product is taken out of the machine. The Besser Manufacturing Co., Alpena, Mich., also exhibited a drain-tile machine which was also automatic in its action and which by a clever arrangement permitted work to be carried steadily along without any interruption. A number of the companies heretofore mentioned as making block machines also make molds for turning out all sizes of sewer pipe, either reinforced or not, as desired. A rather unique exhibit was that of concrete structural tile made by the Concrete Stone & Sand Co., Youngstown, Ohio. This system is the invention of A. A. Pauly, and it consists of a wet mixture of cement and aggregate composed of sand, stone or slag, which is poured into molds and steamed for about 20 minutes and then ejected in completed form. These tile are to be used for floor spans, roof, partitions and similar construction, and represent an entirely new field. Two styles of cement roofing tile were exhibited, one by the Diamond Cement Machinery Co., Toledo, Ohio, and the other by the 20th Century Tile Roofing Co., Rochester, Mich.

Quite a number of other specialties exhibited also attracted attention, owing particularly to their uniqueness, adaptability and efficiency. These included a burial vault by the Buffalo Burial Vault Co., Buffalo, N. Y.; post machines of several designs by the D. & A. Post Mold Co., Three Rivers, Mich., and Kerlin Automatic Post Machine Co., Delphi, Ind.; sewer forms by Blaw Collapsible Steel Centering Co., Pittsburgh, Pa., and Hickson's Sewer Mold Co., Mt. Gilead, Ohio; automatic tamping machines by the Kramer Automatic Tamper Co., Peoria, Ill.; molds of all kinds, both ornamental and plain, for concrete-block work, by Simpson Cement Mold Co., Columbus, Ohio; wheelbarrows of especial design for cement and concrete work, by the Lansing Wheelbarrow Co., Lansing, Mich., and Sterling Wheelbarrow Co., Milwaukee, Wis., and small gasoline engines especially adaptable to concrete machines, by the New Way Motor Co., Lansing, Mich.

An important industry which has sprung up as a result of the concrete-block development has been the manufacture of waterproofing compounds which would prevent the blocks from absorbing water, and the effectiveness of these compounds were brought out in several exhibits here, one of particular interest having a sheet of water flowing at intervals over a concrete wall, and when stopped it was demonstrated that the waterproofing compound accomplished its work. In this line were three exhibits—Toch Bros., A. C. Horn Company and Aquabar Company, all of New York city. Roofing especially adapted to concrete structures and waterproofing for concrete foundations were shown by the Barrett Manufacturing Co., New York city. Tar-Rok subfloors, another of the company's products, was also exhibited, these being placed under floors of factories, shops, etc., for the purpose of preserving and protecting the wooden floors from dampness and decay.

These necessarily brief references to the leading features of this year's Cement Show give some idea of the scope and great importance of cement and cement products. It chronicles year by year the wonderful advancements that are being made in extending its field of usefulness into every branch of construction work.

and indicates how surely in time to come cement shall supplant the older building materials. That these annual affairs are worth every cent of the thousands of dollars that are expended annually in attending the convention and exhibition and displaying products is testified to by those who go to them annually. Not only is the advantage taken to acquaint cement users with new and improved machinery, but the orders taken here have amply fulfilled all expectations. Scarce, indeed, were those who were not satisfied with the results, and when one considers that it is estimated that fully \$150,000 was spent by those attending, some idea can be had of the business that must be obtained to meet this large expenditure and make it an annual paying venture. And this is further testified to by the fact that nearly all who exhibit one year are always found on hand thereafter, and the number is rapidly increasing every year.

The sessions of the convention proper were held in the concert hall of the Tech Theater, and these were confined to the mornings and evenings, thereby leaving open the afternoons, so that the cement users could attend the exhibition and acquaint themselves with the progress that had been made during the year in the improvement of machines and accessories. Every one of the sessions were noted for the intense interest of the delegates, and that they were there to broaden their knowledge of the industry was shown in the earnest attention given to every speaker and the general discussion of the various subjects entered into. Indeed, these discussions and the relating of personal experiences in producing the different kinds of cement products was participated in so fully that special times had to be set aside in order to have every point thrashed out and to satisfy the cravings of everyone for information. Another noteworthy fact, too, was the willingness of those who had been more successful in getting desired results to give to those who had had trouble in their work the advantage of their experience, point out the causes of the trouble and to show them how to overcome their difficulties. And it is this work-together spirit which was characteristic of the entire proceedings that presages the healthy advancement of industry in its every phase. Another notable feature of these sessions was the throwing open of the galleries of the hall to all who desired to come and listen to the proceedings, and it was remarkable to see the number of seats that were always occupied.

On Tuesday morning, after the formal address of welcome by Mayor James N. Adam of Buffalo and response by President Richard L. Humphrey of the association, the convention immediately got down to business. The first paper read was the report of the committee on sidewalks, streets and floors, by Chairman George L. Stanley. This committee had in charge the preparation of a set of standard specifications for the work that would be acceptable to all parts of the country and for all grades of work. In referring to these specifications Chairman Stanley said that it had been the one aim of the committee to so frame them that when followed they would result in good and serviceable walks. In the United States, he added, there is such diversity of materials for the principal aggregates that it would seem almost impossible to specify the amount of cement and have a uniform strength unless the amount of cement specified varied. If it was only choosing a suitable brand of cement, there would be but little difficulty, as most of our cement mills make only a high-grade quality of cement. These specifications, which were later modified by some suggestions made by C. W. Boynton on a paper on

"Cement Sidewalks," were adopted, and as they are the results of the most careful study of the question for several years by men whose whole time has been given to cement work, the association feels that they do represent the best practices.

At the evening session President Humphrey read his annual address, which covered in a general way the advancements and improvements throughout the industry during the past year. In speaking of the future he outlined what he thought should be the real and proper policy of the association, and predicted that if followed even greater success and usefulness would be achieved. He is strongly in favor of standardizing every process of cement construction and putting them on the highest plane of efficiency. An illustrated lecture was delivered by W. K. Hatt, professor of civil engineering, Purdue University, Lafayette, Ind., on "Elementary Mechanics of Reinforced Concrete." So clearly did he make his points on the first principles of reinforced-concrete construction, backed up by tests and figures to prove them, that it was possible for his hearers to absorb his arguments and obtain a much better understanding of this important subject. W. H. Mason, superintendent of the Edison Portland Cement Co., Stewartsville, N. J., followed with a paper on "Methods and Costs of Reinforced-Concrete Construction with Separately Molded Members."

On Wednesday morning E. S. Larned of Boston, Mass., submitted the report of the committee on testing cement and cement products. This was accompanied by printed standard specifications for concrete hollow block, which were prepared for adoption of the present convention. Mr. Larned went into a lengthy and detailed discussion of the reasons of the committee for reaching its conclusions, and urged the importance of the specifications being adopted. Mentor Wetstein of the Ideal Concrete Machinery Co., South Bend, Ind., then submitted the report of the committee on machinery for cement users. He recommended that a secretary of this committee be appointed, and who should also be made general manager of the annual exhibitions. He also predicted that in two years no hall throughout the country would be large enough to hold the exhibits of concrete machinery. He urged upon cement users who contemplated going into the concrete-block business that they thoroughly investigate all methods, machines and equipment before making a selection, and warned them that otherwise it would prove a losing venture for them.

Charles D. Watson of Pittsburgh, Pa., chairman of committee on art and architecture, reported that an effort is being made to show at future annual meetings stereopticon views of concrete structures of more than ordinary architectural merit. Prominent architects throughout the country have agreed, he said, to send in their best designs each year, and the American Institute of Architects has agreed to appoint a special committee to select the number to be shown.

Next followed Robert W. Lesley, president of American Cement Co., Philadelphia, Pa., who spoke on "Co-operation: What It Is and What It Can Accomplish." He delivered a very strong and telling talk, and created much enthusiasm in speaking of the industry's future.

At the evening session E. B. Green, architect, Buffalo, N. Y., spoke upon the growing adoption by architects of cement and concrete in high-grade work and the architectural treatment of concrete surfaces. He was followed by Charles D. Watson of Pittsburgh, Pa., who spoke on "Factory-Made Concrete." This subject covered the advantages to be derived from making portions of the concrete building in a factory rather than on the job.

Albert Moyer of the Vulcanite Portland Cement Co., New York, spoke on "Exposed Selected Aggregates in Monolithic Concrete Construction." This was in line with the great attention that is now being given to exposed surfaces and their treatment to produce architectural effects, and Mr. Moyer's talk was both timely and instructive. He went into his subject thoroughly, and threw out many suggestions which will undoubtedly prove of much value in such work.

On Thursday morning papers were read by J. W. Pierson of East Orange, N. J., on "Progress in Manufacture and Use of Cement Building Blocks," followed by Leonard C. Wason, president of Aberthaw Construction Co., Boston, Mass., with a splendid talk on "Proportioning and Mixing Cement Mortars and Concretes." This subject was covered with such detail that many useful and practical suggestions were obtained by the delegates. A general discussion followed, and many questions were asked Mr. Wason by those who desired information on particular points of his talk.

In an illustrated talk on the "Use of Concrete in Reclamation Service Work" E. T. Perkins of Chicago, Ill., told of the use of concrete in the construction of aqueducts, canons, headgates, etc., in reclaiming lands heretofore untilable. He showed a number of views of this work and the crops subsequently raised on the land. The all-important subject of waterproofing concrete was ably covered by James L. Davis of New York city, who went into his topic in detail and gave the cement users much practical and important information.

Friday morning was devoted to papers on the "Unit versus the Loose Bar System of Reinforced-Concrete Construction," by Emile G. Perrot, architect, Philadelphia, Pa.; "Universal Forms in Concrete Construction," by J. F. Swinnerton, New York city, and "Metal Forms in Reinforced-Concrete Construction," by W. L. Caldwell, Canton, Ohio. In the evening session a paper was read by H. H. Fox, superintendent Turner Construction Co., New York city, on "Reinforced Concrete from the Contractors' Point of View," and the concluding paper, by President Richard L. Humphrey, on the progress being made in the investigation of cement mortars and concretes in the structural materials testing laboratories of the United States Geological Survey at St. Louis, Mo.

The election of officers showed very little change again this year, and the following were chosen: President, Richard L. Humphrey; first vice-president, Merrill Watson; second vice-president, M. S. Daniels; third vice-president, S. B. Newberry, and fourth vice-president, George C. Walters. The following were elected as section vice-presidents: Cement products and machinery, A. T. Bradley; streets, sidewalks and floors, W. S. Schouler; reinforced concrete, S. E. Thompson; art and architecture, C. D. Watson; testing cement and cement products, E. S. Larned, and laws, ordinances and insurance, W. H. Ham.

Three cities—Atlantic City, N. J.; Louisville, Ky., and Chicago, Ill.—put in claims for next year's convention, but no decision was made, and the whole matter was referred to the executive committee for decision.

A new class of contributing members was authorized by the convention, and this was organized later with E. D. Boyer of Catasauqua, Pa., as chairman, and O. U. Miracle of Minneapolis, Minn., as treasurer. The subscribed sum for each member was placed at \$25, and many members were enrolled in this class before the convention ended. The money will be used to further the general interests of the association.

WM. H. STONE.

CURRENT EVENTS AS VIEWED BY OTHERS

TRAINING TEXAS LEADERS.

[Houston (Texas) Chronicle.]

Manufacturing in Texas is developing just as fast as the demand for competent experts can be supplied. It can develop no faster. In every one of the leading cities of the State the demand for young men competent to manage modern machinery, to direct new sales departments of old businesses, to organize and energize new industrial undertakings of every sort far outruns the supply.

An effort is being made to fill this demand. The Agricultural and Mechanical College of Texas is training young men to take positions of command in the twentieth-century organization of Texas' business life. The news comes from College Station that a good many ambitious students, unable to find shelter elsewhere in that place, have spent the winter living in tents while pursuing the courses of study at the college.

This situation reflects no credit upon the Legislature and the executive administration of Texas, who have failed to make suitable provision for the young Texans thus fitting themselves to serve the Commonwealth in her most important fields, but it does speak volumes for the pluck of the youngsters themselves. These tent-dwellers are the right sort. No mollycoddles among them. They'll arrive, all right. And they'll give a good account of themselves when they do arrive.

A good many of them have suffered from grippe, colds in the head and the like illnesses this winter, but the only way you can stop fellows like these is to hide the books and lock the doors of the school shops and laboratories. The economical ideas of the legislators have not gone to this limit, fortunately.

Texas A. and M. is young compared to some of the big Eastern schools doing the same kind of work, but her graduates are coming to the front here at home and in other States. Meantime there is work waiting in this State for hundreds of young men that have been given a technical training in the Eastern schools, men that have organizing skill and executive capacity to put behind their technical training. The banks of Texas send a good many millions of dollars East for investment every year that they would be glad to put into Texas industries. The development of these industries waits on nothing else as much as it waits on the coming of young men capable of handling the work. Let the State Legislature have this fact in mind next time it takes up the bill appropriating money for the support of the Agricultural and Mechanical College. Texas can afford to be liberal in that direction. She can't afford not to be.

GERMAN WATERWAYS.

[Pittsburg Dispatch.]

The example of Germany in improving her inland navigation is well worth the careful study of this nation. In the latter part of the last century she was among the foremost nations in this respect. Between 1871 and 1900 there were constructed, mainly in Prussia, nearly 700 miles of canals, besides improving rivers. About 1900 the dominance of the rather stupid Agrarian or landowners' policy restricted this work on the very shortsighted logic that the waterways benefited the manufacturers more than the farmers, and that further reduction of the cost of transportation would injure the latter.

Now, with the personal influence of the Emperor of Germany, as King of Prussia, backing the projects, they are to be re-

sumed. The chief enterprises are a canal from the Rhine to the Weser, and one from Berlin to Stettin, to carry vessels of 600 tons. Further, the improvement of the waterway between the Oder and the Wechself and the canalization of the upper part of the Oder are outlined. For these projects the Prussian Government, though in financial difficulties, has appropriated a total of \$83,000,000, on the direct logic that the best relief for such difficulties is in the improvement of transportation and the enlargement of commerce.

The proof of this fact lies in the results already secured from German waterways. The annual traffic on the Rhine passing Emmerich on the German Dutch frontier increased from 5,392,800 to 17,239,800 tons between 1889 and 1903. From 1875 to 1895 the canal and river tonnage of Germany increased very much more than 100 per cent, while the growth of railroad tonnage was considerably less. The German river and canal fleet had a total tonnage capacity of 1,658,266 tons in 1882, and 20 years later 4,873,502 tons.

Do these things carry no lesson to the United States? If Prussia in financial straits, and for its comparatively limited territory, can appropriate \$83,000,000, how much can the United States appropriate out of its vast wealth for much vaster opportunities? The possibilities of the Ohio and Mississippi basin are almost infinite beside those of the German rivers. The agricultural, mineral and industrial resources of the States lying between the Appalachian and Rocky ranges are not over half developed for lack of cheap transportation. The streams to furnish the transportation are there. All that is needed is to vigorously push the work of improvement that has been demonstrated so clearly in Germany. Opposition or hindrance of that work is opposition or hindrance of the most thorough development of the country.

SEWERS.

[Arkansas Gazette.]

A single issue of the MANUFACTURERS' RECORD contains the following notices of sewer projects:

Barhousville, W. Va.—City has voted \$15,000 of bonds for construction of sewerage system and water-works. Additional bonds will be issued later if necessary.

Cameron, Texas.—City will soon vote on issuance of \$20,000 of bonds for construction of sewerage system.

Joplin, Mo.—City will expend \$50,000 in construction of sanitary sewers and \$46,000 for storm sewers.

Muskogee, Okla.—City contemplates constructing sewers, expending about \$40,000.

Norman, Okla.—City will vote February 11 on issuance of \$35,000 of bonds for sewer extension.

If Cameron, Texas, and Norman, Okla., are big enough to have sewer systems, why do much bigger cities delay the work of completely sewerizing themselves?

Joplin, Mo., has voted \$46,000 for storm sewers. Yet there are cities bigger than Joplin where the people have to jump over creeks in the streets, these waterways existing during rains because there are no storm sewers to dispose of surface water.

GOVERNOR ANSEL AND RAILROADS

[Charleston News and Courier.]

Governor Ansel sent a very sensible special message to the Legislature last Saturday suggesting that there should be no legislation at this session on the question of railway passenger rates, the Railroad

Commission already having under the law power to fix rates and the railroads themselves having offered to reduce the passenger rates. "It is by reason of the conservative course that this State has pursued in the past that these corporations have voluntarily consented to give us the rates above referred to," (the rates fixed in the State of North Carolina), says Governor Ansel, "and I submit, for your wise determination, the question as to whether any legislation should be had at this session of the General Assembly."

We sincerely hope that the Legislature will be influenced in its course in this matter by the Governor's recommendation. He has taken a conservative and wise view of the question, a view that must commend itself to the acceptance of those who are really interested in the material development of the State. In our opinion, the railroads in South Carolina cannot live on a two-and-a-half-cent rate, and that the offer of the Southern Railway to put in this rate was a business mistake, however much we are inclined to applaud its courage and friendly disposition in this course. A year's trial of the new low rates which the railroads have agreed to make on their own account, and without compulsion, will prove whether or not the roads can maintain their passenger service at less than its cost, and the State would certainly lose nothing awaiting the result of this practical test.

If it shall turn out that the roads must seek receiverships, that would be the fault of their managers in the circumstances; if they should be compelled to apply for this remedy for the protection of their securities, the blame would be placed upon the Legislature should it now attempt to do by statute what the railroads have already agreed to do without legislation. The safe course is to let well enough alone. Governor Ansel is right.

WEALTH IN DRAINAGE.

[Galveston News.]

In view of the rapidly-growing sentiment in all of the Texas counties which touch and border on the waters of the Gulf in favor of the proper drainage of the Gulf coast plains, the many benefits and advantages that would result from such drainage should be kept constantly to the front. It is folly to close our eyes to the facts which are ever staring us squarely in the face. The intelligent man who is familiar with the topography of this magnificent country, which is so rich in soil and climate, must know and understand the principal physical obstruction which checks and impedes its development. The intelligent farmer, the sound thinking citizen and the enterprising man of business do not need to be told that thorough drainage is today and has been for years the greatest need and the most important problem now confronting the people of the Gulf coast country. Without drainage it is useless to expect or even hope to see any rapid headway in the development and settlement of this section of the State.

That intelligent and enterprising class of farmers from other States and sections who are seeking homes in Texas are not going to invest their money in these low, wet and water-soaked lands, and in that particular they manifest common sense and sound judgment. But put these lands in proper condition for settlement and for farming, and a more inviting region to the farmer, the truck grower, the horticulturist, the stock-raiser, the dairyman and the poultry-raiser, as well as the man of

business, could not be found anywhere within the broad area of the United States.

Give this country suitable drainage, and hundreds of the stagnant mosquito-breeding pools, ponds and lakes would be converted into the finest of agricultural lands, and instead of producing myriads of those pestiferous insects to harass and annoy man and beast, they could be made to release their soil wealth in untold abundance.

The producing capacity of the coast country in ordinarily dry years has been sufficiently demonstrated to show that the lack of proper drainage is the greatest impediment in the way of the rapid growth and development of this section as the ideal section of the Sunny South.

HORSELESS AGE STILL DISTANT.

[The Oklahoman.]

Thomas Edison doubtless erred a short time ago when he declared that in 10 years a horse would be regarded as a museum curiosity.

Edison believed that automobiles and electric machinery would rapidly dispense with the need of man's equine friend.

Such talk, however, had the effect to scare many horsemen to the extent that they quit breeding horses, and in some parts of the country there is at this time a scarcity of these animals, while horse-flesh today commands a high price everywhere.

So scarce have horses become in Wisconsin and Minnesota that it is reported as not an uncommon scene to witness a team composed of a horse and a cow hitched to the plow or the farmer's wagon.

Oxen also are again being used in the Wisconsin lumber camps. This is said to be due to the fact that the good draft horses from Wisconsin farms have been purchased for city traffic, and a poor horse is of little use in a lumber camp.

Horses are in demand everywhere, notwithstanding the growing demand for automobiles, and it will be many years yet, even with the rapid advance of electricity, before automatic machinery will do the work of a horse on the farm.

FIGHT FOR FORESTS.

[Atlanta Constitution.]

The project of forest preservation is of such vast moment to the material welfare of the South that the Constitution feels it is only necessary to draw attention to the public duty of the Georgia delegates who will leave here for Washington tomorrow afternoon.

The personnel of the delegation that is to voice the sentiment of the State before the House agricultural committee is, we believe, of that high intellectual and moral type that needs little tuition respecting the important nature of the mission.

These Georgians and other Southerners will meet in the National Capital with representative business men and publicists of New England, who are equally interested in the preservation of a guardian strip of forest land from the White mountains in Vermont on down to the terminus of the Blue Ridge.

In a measure they hold in their hands the fate of the enormous developed and potential water-powers of the Southern States; the expansion or the deterioration of the South's basic industry of agriculture; the partial solution of the section's perplexing and portentous transportation problem, and the safeguarding of the sources of water supply for the cities of the present and of the future.

The verdict as to the needed \$5,000,000 appropriation will, of course, rest with

the committee, and, finally, with the rather unfriendly Speaker Cannon. The delegates from the mass of the people can, however, discharge their responsibilities by stating the case and the status of public sentiment in emphatic and unmistakable terms. If the inauguration of this urgent enterprise is then postponed another year an aroused and interested constituency will know where to place the blame.

This is why the *Constitution* is urging on the delegates the exertion of every effort to make one of the party to Washington. The opportunity of service is one of real distinction. We believe it will be viewed in that patriotic light by every citizen honored with appointment.

THE RAILROAD BY SEA.

[*Wall Street Journal.*]

January 16 saw the culmination of an important stage of the great project being worked out by Henry M. Flagler, when the new railroad from Miami to Knights Key is opened. This line is the longest part of the ambitious extension of the Florida East Coast Railway, by which the road's terminus will be moved from Homestead, Fla., to Key West, 128 miles further south.

Construction work on the extension was begun on May 1, 1905, and the frequent engineering problems met with each step of its progress have been successfully solved. Stretching its way from key to key over intervening lanes of water varying in depth from a few inches to 30 feet, the new line when completed will have been built for 74 miles on land, 25 miles through swamps and 23 miles over water. It has been appropriately nicknamed the "sea going railroad." On the entire route 50 keys are crossed, and the delay accompanying the procuring of material for the connecting concrete viaducts has prevented earlier completion of the new section.

Included in the 150 miles from Miami are nearly six miles of concrete viaduct and 80 miles of embankment, rising 31 feet above the water, to protect the track from storms. The line has 10 bridges, two of them drawbridges, with 40-foot clear openings on each side of the pier and one with a clear opening of 100 feet on each side. The longest viaduct, from Key West to Conch Key, is 10,500 feet, built in the most substantial way. In places concrete work on the railway has cost more than \$500,000 per mile. The road is, of course, single track, with 70-pound rails, and is an excellent piece of construction work. For the extensive grading necessary 4000 men were employed last winter.

The completion of the road is expected to make a wonderful change in the development of Key West. With railroad facilities this city should take a position as a port entry on a par with Galveston, Mobile and New Orleans. Key West will obviously be the port of Cuban traffic, being but a little more than four hours' distant from Havana, and will be the nearest rail connection from Haiti, Santo Domingo and the Panama canal. From the opening of the canal a large amount of profitable business is expected to originate, while the winter tourist traffic is a sure source of considerable passenger revenue. Property and real estate in Key West have advanced by leaps since the coming of the railroad was made certain. The city's harbor is expected to provide wharfage space for 40 deep-sea vessels, with wharves 800 feet long. The harbor has been filled in for an area of 800x1500 feet by pumping mud from the bay, and upon this newly-made land will be built the terminal. There will also be erected here another Flagler hotel.

Completion of the last section of 46 miles to Key West will be pushed, but will not be accomplished for many months.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Yellow Pine Manufacturers.

At the annual convention last week at New Orleans of the Yellow Pine Manufacturers' Association, Secretary George K. Smith of St. Louis in his annual report said:

"The production during 1907 was materially reduced during November and December, and stocks would have been very heavy had not prompt individual action been taken to meet the changed conditions. From 132 reports of actual inventories it appears that stocks on hand at the mills January 1, 1908, are 2 per cent. greater than one year ago and 8 per cent. above normal. If this percentage holds good among all the mills, stocks are still above normal, even with the reduction in production during the past 60 days.

"The difficulty of securing a large number of reports early enough to be included in this annual report and the importance of having actual figures for consideration, instead of estimates, emphasizes the suggestion made one year ago that our time of annual meeting be changed to 30 days later, or about February 20."

He compared the reports of production for 1906 and 1907 as follows:

| 1906. | | |
|------------------------|------------|--|
| States. | No. mills. | From actual figures rec'd during 1907 and revised estimates. |
| Missouri and Oklahoma. | 5 | 100,571,080 |
| Arkansas. | 127 | 1,204,941,374 |
| Louisiana. | 324 | 2,212,317,441 |
| Texas. | 267 | 2,636,304,323 |
| Mississippi. | 544 | 1,948,112,621 |
| Alabama. | 195 | 1,000,24,834 |
| *Georgia and Florida. | 58 | 602,736,353 |
| Total. | 1520 | 9,105,208,026 |

| 1907. | | |
|------------------------|------------|--|
| States. | No. mills. | From estimates and actual figures on file. |
| Missouri and Oklahoma. | 5 | 63,121,482 |
| Arkansas. | 127 | 1,052,851,115 |
| Louisiana. | 324 | 2,222,104,518 |
| Texas. | 267 | 1,859,039,036 |
| Mississippi. | 544 | 1,837,564,321 |
| Alabama. | 195 | 961,134,249 |
| *Georgia and Florida. | 58 | 588,203,963 |
| Total. | 1520 | 8,584,017,784 |

*Not complete for these States.

The report of the committee on weights and weighing, George R. Hicks, Kansas City, chairman, was adopted and the committee continued. The committee on grades and sizes, J. W. Martin, Yellow Pine, La., chairman, recommended several changes in the grading rules, which were adopted, as was also the report of the committee on general specifications, I. C. Enochs, Jackson, Miss., chairman, which recommended standard specifications of structural timbers, as adopted by the American Society for Testing Materials, with certain alterations. A detailed report was submitted by the advertising committee, H. H. Foster, Malvern, Ark., chairman, presenting the work accomplished last year and recommending that the advertising work be continued during 1908. The following officers were elected: H. H. Foster, Malvern, Ark., president; Phil S. Gardiner, Laurel, Miss., first vice-president; A. J. Neimeyer, St. Louis, treasurer; George K. Smith, St. Louis, secretary; W. L. Goodnow, St. Louis, assistant secretary; State vice-presidents—I. C. Enochs, Jackson, Miss.; C. W. Greer, Thornton, Ark.; F. H. Lathrop, Birmingham, Ala.; J. H. Berkshire, Winona, Mo.; S. T. Woodring, Lake Charles, La.; H. H. Tift, Tifton, Ga.; A. W. Ranney, Century, Fla.

National Lumber Exporters.

The National Lumber Exporters' Association met at the St. Charles Hotel, New Orleans, La., last week, with an attendance of about 40 members from Memphis,

Louisville, Baltimore, Philadelphia, Norfolk, St. Louis and other localities. President John L. Alcock of Baltimore, Md., presided, and submitted his annual report, which was adopted by the association. Committee reports on the London and Liverpool measurements relating to shortages were discussed and remedial plans suggested, the question finally being referred to a committee. The car-service question was also discussed, but no definite action taken. All the present officers of the association were re-elected as follows: John L. Alcock, Baltimore, Md., president; George M. Spiegel, Philadelphia, Pa., vice-president; Harvey M. Dixon, Norfolk, second vice-president; Richard W. Price, Baltimore, Md., treasurer. The board of directors re-elected E. M. Terry of Baltimore, secretary and traffic manager, and J. O. Elmer of New Orleans, assistant secretary.

Box Shook Factory.

The Lingo Box Co. has been incorporated by Delaware and New Jersey capitalists, and is reported to have purchased 10 acres of land near Wilmington, N. C., for the purpose of establishing a large plant to manufacture box shooks, etc. The plant will be located on the suburban railway line, near Delgado, and will have convenient transportation facilities. It is expected to manufacture its product from kiln and air-dried North Carolina pine, and will have an annual capacity of 5,000,000 feet, increasing this capacity as the demand increases. Work of construction will begin within a few days, and it is expected to have the plant in operation during April. Mr. J. H. Layton, secretary and manager of the company, is at Wilmington, and will have charge of construction. Other officers of the company include Messrs. R. D. Lingo, president and treasurer, and D. J. Adkins, vice-president.

Lumbermen Meet.

The Lumbermen's Club of Memphis, Tenn., met last week and appointed a special committee to consider the proposed withdrawal by the railroads of the re-consignment privileges on shipments of lumber. The committee as appointed is composed of Messrs. A. L. Foster, chairman; W. B. Morgan, James E. Stark, W. A. Ransom and E. E. Taenzler.

Following the meeting of the Lumbermen's Club a number of hardwood manufacturers held a conference for a general discussion of trade conditions. Figures compiled by Secretary Lewis Doster of the Hardwood Manufacturers' Association were presented, showing an available stock on hand, including cottonwood, quartered oak, plain oak, gum, ash, elm, maple, sycamore, cypress and poplar, of 126,828,000 feet.

Purchases Lumber Company.

The L. E. Campbell Lumber Co. of Memphis, Tenn., associated with John G. Adler, has purchased the planing mill, yards, equipment and lumber of the De Soto Lumber & Manufacturing Co., located at Vance avenue and the Southern Railway, Memphis. The firm will operate as the L. E. Campbell Lumber Co., with John G. Adler as general manager, the principal stockholders of the company being J. E. Campbell, John G. Adler and W. A. Breen.

To Make Wood Pulp.

A dispatch from Norfolk, Va., announces that the International Paper Co. of New York city has purchased four tugs to be operated on the James and other rivers for gathering wood for making pulp, and has put Capt. Isaac Toler of Norfolk in command of the fleet. It is expected that the company will eventually establish a pulp plant in Norfolk or vicinity for the re-

duction of gum and other timbers to pulp, making shipments in this way.

Gulf Coast Exporters.

At the monthly meeting of the Gulf Coast Lumber Exporters' Association at the Hibernia Bank Building, New Orleans, La., last week a new classification affecting the grades of pine lumber for export was adopted. The new classification follows the general lines of the old classification, but differs in some technical details. The association adjourned to meet at Pensacola, Fla., on February 25.

Wants Shingles.

Mr. S. B. Ward of Belle Haven, Va., wants several carloads of five-inch cypress and red-cedar shingles.

Lumber Notes.

Forty-two new buildings, most of which were dwelling-houses, were erected in Frostburg, Md., during 1907.

The Cuban steamer *Vueltabago* arrived at Mobile, Ala., last week from Laguna, Mexico, with a full cargo of mahogany consigned to Messrs. Markley & Miller.

The schooner *Howard B. Peck* cleared from Wilmington, N. C., last week with a cargo of 457,000 feet of lumber for New Bedford, Mass., consigned to the Cape Fear Lumber Co.

The pulp plant of the Champion Fiber Co. at Canton, N. C., is nearing completion, and one chipper has been put in operation. When completed the plant will have three chippers, with a total capacity of 285 cords of wood per day.

The Pittsburgh-Arkansas Lumber Co., with main offices at Pittsburgh, Pa., has been incorporated with a capital stock of \$200,000 to develop timber lands in Arkansas. Among the incorporators of the company are Messrs. R. M. Belnap and E. A. Casey of Pittsburgh, J. M. McInerney, Allegheny, Pa.; M. J. Gannon, Sewickly, Pa., and others.

Sabine-Neches Channel.

In connection with the celebration at Port Arthur, Texas, of the completion of the channel connecting the Sabine-Neches rivers with the Port Arthur ship channel, a committee consisting of Messrs. J. A. Arnold of Beaumont, F. H. Farwell of Orange and S. Goldberg of Port Arthur has published some facts of interest regarding the work. The total length of the channel is 15 miles, and it was constructed at a cost of \$336,500. More than 3,000,000 cubic yards of material were dredged in making the channel, with a width of 100 feet at the bottom and of a depth of at least 10 feet at mean low Gulf level. The completion of the work will open up a fruitful and fertile valley for several hundred miles, and will give it close connection with the ports of the world.

Competitive Designs Invited.

The city of Richmond, Va., is inviting competitive designs for the erection of a combined market and armory building. Architects submitting designs are required to furnish plans, four elevations, longitudinal and cross-sections and such other detail drawings as may be necessary. Designs to be received until March 28. Address Charles E. Bolling, city engineer.

The first meeting of the gas power section of the American Society of Mechanical Engineers will be held Tuesday evening, February 11 in the Engineering Societies Building at 29 West 39th street, New York. The subjects under discussion will be "Experimental Gas Turbines in France," "A Simple Continuous Gas Calorimeter," "A Gas Engine and Producer Guarantee." Other subjects relating to the question of gas power will also be discussed.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

PROGRESS ON ROGERS' LINE.

Virginian Railway Gets Through the Mountains and Will Be Finished This Year.

The Virginian Railway Co. has completed its long tunnel at the summit of the Allegheny mountains near Merrimac mines, the work having been finished by McArthur Bros., contractors. The tunnel is one mile long, and was bored through rock. Mr. H. Fernstrom, chief engineer of the company at Norfolk, Va., is reported as saying that at no point on the road has work been entirely suspended, and at places where it is checked, that has been only the result of winter conditions. Now that the Allegheny tunnel is completed, the company will rapidly push completion of the western end of the line. Until the tunnel was bored through neither steel work for the viaducts nor rails for the tracks on that end of the road could be moved. There are five large viaducts to be erected and the track to be laid. This work is to be taken up immediately, grading having been completed on the line from Roanoke to Deepwater, 172 miles. It will be several months before trains will reach Roanoke from the west.

The last section of the line to be completed will be that between Roanoke and Victoria, Va., in the direction of Norfolk, trains now being in operation between Norfolk and Victoria. There are some heavy cuts on this uncompleted middle section, and about six steel bridges will have to be erected. The material for these is already manufactured.

In conclusion, Mr. Fernstrom is quoted as saying that this year, 1908, will find the Virginian Railway in operation all the way from Norfolk to the coal fields. The construction of the yards and the approaches to the coal pier at Sewell's Point, near Norfolk, will be taken up again in time to be finished simultaneously with the road, and some forces are still being employed on the construction of the pier.

DALHART TO THE GULF.

Panhandle Short Line Will Have Deep-Water Terminal at Aransas Pass.

Mr. W. G. Ross, president of the Panhandle Short Line Railway Co., writes the MANUFACTURERS' RECORD from Hereford, Texas, that the proposed route starts at Dalhart, Texas, where it connects with the Colorado Southern road and also the Rock Island and runs southeast through the following counties: Dallam, Hartley, Oldham, Deaf Smith, Castro, Lamb, Hockley, Terry, Andrews, Gaines, Midland, Upton, Crockett, Tom Green, Sutton, Edwards, Kinney, Uvalde, Zavalla, Dimmit, McMullin, LaSalle, Live Oak, Nueces and Patricio to deep water at Aransas Pass. At Hereford, in Deaf Smith county, the line will connect with the Pecos Valley Railroad, and at Midland with the Texas Pacific Railway; at Uvalde with the Southern Pacific, and at Artesia with the International & Great Northern Railroad.

This proposed road, when completed, will run north and south through the best portions of West Texas and down through the Neches valley irrigated belt to Aransas Pass. It will put all the Northwest about 400 miles nearer to all the deep-water ports on the Gulf of Mexico, and will put San Antonio nearly 300 miles closer to the great Northwest. The surveys have been made for over 200 miles of the line, and location is made and the right of way obtained. Contracts will be let for grading 150 miles about the 15th or

20th of February. The line of road, when finished, will be about 750 miles long.

New Railroads Projected.

Among the railroad projects recently incorporated are the following:

The St. Louis & Oklahoma Southern Railway Co. of Muskogee, Okla., capital \$10,000,000, to build a line 275 miles long from a point near Gravish, Benton county, Arkansas, to a point near Oberlin, Bryan county, Oklahoma, at an estimated cost of \$8,000,000. It will pass through various counties in Oklahoma as follows: Delaware, Cherokee, Muskogee, Haskell, Pittsburg, Latimer, Atoka, Pushmataha, Choctaw and Bryan. The incorporators are Henry G. Baker and Walter R. Eaton of Muskogee and James B. Christensen, Clayton L. Stover and John H. Elton, all of St. Louis. The surveys for this line are being completed, and it is said that Messrs. Baker and Eaton are connected with the Indianola Contracting Co., of which Governor Haskell has control.

The Clinch & Sandy Railroad Co., chartered at Big Stone Gap, Va., to build a line 50 miles long from St. Paul, Va., to the Breaks of the Big Sandy river in Dickenson county, Virginia; capital \$10,000. The directors are R. T. Irvine, president, Big Stone Gap; T. P. Trigg, vice-president, Abingdon, Va.; J. S. Wright, secretary; J. W. Kelly, treasurer; H. E. Fox, C. M. Franklin, D. E. Allen and James G. Nesbit, all of Big Stone Gap.

The Paducah Northern Railroad Co., incorporated at Paducah, Ky., with capital of \$5,000, which is to be increased to \$3,000,000, to build a line from Paducah to a point 13 miles down the Ohio river, where a bridge is to be constructed by the Burlington and the Big Four railroads. Other connections may also be made, as the line is to be a terminal road for Paducah. Mark Wymond of Chicago is engineer. The incorporators are George C. Wallace, H. C. Overbey, L. M. Rieke, James C. Utterback, Joseph L. Friedman, Earl Palmer, Richard Rudy, L. P. Hummel, Muscoe Burnett, O. L. Gregory, W. F. Bradshaw, Jr., John W. Keller, Max B. Nahm and Samuel B. Hughes.

Work May Start Soon.

President T. M. Steger of the Nashville & Huntsville Railroad Co., Nashville, Tenn., is reported as saying that work will be started on the proposed line within a month if it is ever to be constructed. Furthermore, that ground will not be broken until all subscriptions are made and deposited in bank under the contract agreed upon.

It is also reported that Marshall county will have the promised amount ready by February 1; that Giles county will have its share ready by February 15, and that Huntsville, Ala., will be ready soon after the beginning of February.

In explanation of the position he has taken, President Steger is reported as saying that many roads have been started with insufficient funds and bad contracts, with the result of receivership and the lines proving more of a burden than a benefit. He did not propose that such conditions should exist with respect to the Nashville & Huntsville road.

New Orleans' New Terminal.

Mr. F. G. Jonah, terminal engineer of the New Orleans Terminal Co., 241 North Rampart street, New Orleans, La., informs the MANUFACTURERS' RECORD that the terminal station building will be ready for occupancy on March 1. The company has nothing further under contract except a number of small buildings in connection with the coach-painting yard, the entire estimated cost of which yard is \$26,000.

A recently-published description of the

station, which is situated at the corner of Canal and Basin streets, says that it will cost a total of about \$257,000. The exterior is massive and lofty, besides being dignified and impressive. There will be a handsome rotunda, topped by a dome 45 feet high. The interior will be beautifully ornamented, besides being commodious. The floor space is of about 10,000 square feet, most of which is for waiting-rooms, but there will also be lunch counters, washrooms, package stands and all other facilities of a modern depot, including two baggage-rooms, one for outbound and the other for inbound baggage. The train shed is more than 600 feet long, and covers four tracks. In addition to this, there will be six outside tracks. In the upper portion of the station will be offices for the New Orleans Terminal Co. Trains of the Southern Railway, the Rock Island and the Frisco system will use the station. Other roads may also take advantage of its facilities.

Paducah Southern.

Secretary H. H. Loving of the Southern Construction Co., Paducah, Ky., writes the MANUFACTURERS' RECORD that the survey for the first division of the Paducah Southern Electric Railway from Paducah to Mayfield, Ky., 25 miles, has been completed by the American Engineering Co. of Indianapolis.

Continuing, Mr. Loving says: "We have secured the greater part of the right of way, and are promised the money on our bonds by our New York bankers promptly, as they have been issued and are on the market. We have a fine, level route, and our proposition is a good one. This will be the first electric road in this section of the country. The line when completed to Hickman, Ky., and Jackson, Tenn., will traverse some of the finest farming and gardening country in the western part of those States. We expect to be ready for grading in the early spring, and also to place our orders for equipment.

"We have filed our mortgage, and it has been recorded in this (McCracken) county and at Mayfield, Graves county, for \$2,000,000 to cover the entire road from Paducah to Hickman, Ky., via Union City, Tenn. The Windsor Trust Co. of New York is the trustee."

Robert Lee to Rawlings.

Mr. S. J. Gross, chief engineer of the Robert Lee & Fort Chadoorne Railway, writes from Robert Lee, Texas, to the MANUFACTURERS' RECORD that the proposed line is from Robert Lee to Rawlings, 13½ miles, and from Rawlings to Winters, 21½ miles, with 2½ miles graded from Robert Lee toward Rawlings, where the Kansas City, Mexico & Orient Railway will be crossed. The grading force has been moved to Rawlings, and will proceed with the work toward Robert Lee. No work is yet done on the portion from Rawlings toward Winters. Mr. J. E. Hunter has charge of construction at Robert Lee, where the main office is situated. The line to Rawlings will be first completed, and as soon as possible, which will be at least nine months. The officers of the railway are J. Austin Spencer, president; J. T. Thomson, vice-president and general manager; C. C. Merchant, secretary and treasurer.

To Use Electricity.

The Missouri, Oklahoma & Gulf Railway Co., which has built a line about 100 miles long from Waggoner, Okla., via Muskogee, Henrietta and Dustin to Rose, Okla., will, it is reported, operate that part of its road between Waggoner and Muskogee, 17 miles, with electricity. The reason for this, it is said, is for the purpose of handling traffic in connection with a

large packing-house plant at Fall City, about half way between the two places, as well as the output of several other industrial plants. It is said that tests of an electric locomotive have already been satisfactorily made on the line. William Kenefick of Kansas City is president of the road; W. P. Dewar is vice-president and treasurer, and E. B. Fisher, general superintendent, both at Muskogee, Okla. An extension south to Denison, Texas, is under way.

Will Build to Houston.

Jeff N. Miller, vice-president and general manager of the St. Louis, Brownsville & Mexico Railway, who recently visited Houston, Texas, on business with the Houston Belt & Terminal Co., is quoted as confirming the report that his company will build an extension to that city, but he also said that he could not state when work would begin. At present the company is improving the line already constructed by distributing ballast and building up the track. The Belt & Terminal Co. will not complete its freight sheds for some time, and until these facilities are provided the road need not build to Houston.

Mr. Miller is further reported as saying that his line is in excellent condition, and that traffic has increased considerably. A large number of homeseekers are being carried, and the country traversed by the road is being rapidly settled.

New Equipment.

The Baltimore & Ohio Railroad recently ordered two postal cars from the Harlan & Hollingsworth Corporation at Wilmington, Del.

The Atlanta & West Point Railroad has just received a new dining car.

The Colorado Southern, New Orleans & Pacific Railway has ordered from the Pullman Company 12 passenger cars, 4 baggage cars and 4 combination baggage and mail cars.

Railroad Notes.

The Gainesville Midland Railway, according to a report from Gainesville, Ga., has obtained a motor car with a capacity of 20 passengers to be used in service between Gainesville and Athens, Ga.

The Southern Railway Co. is reported to have let a contract to J. C. Morris of Greensboro, N. C., for enlarging the roundhouse yards at Spencer, N. C., and he has begun work. The contract includes the construction of several concrete cinder pits, each 100 feet long. The company also proposes to build a two-story brick storage and office building.

The annual report of the Maryland & Pennsylvania Railroad Co., covering the calendar year of 1907, shows gross earnings, \$385,654; expenses, \$253,747; net from operation, \$131,906; total income, \$133,486. After the payment of the interest on bonds, amounting to nearly \$84,000, and deductions for betterments, depreciation and equipment trust, amounting to \$38,548, there was left a surplus of over \$11,000, making the total surplus \$44,187.

Steam Laundry Needed.

The Indianola Light, Ice & Coal Co. of Indianola, Miss., wants to correspond with parties who would be interested in establishing a steam laundry at Indianola.

The Danville (Va.) Commercial Association has re-elected Messrs. A. B. Cartington, president; L. Herman, vice-president, and Messrs. A. D. Starling, Harrison Robertson, Jr., R. A. James, N. A. Fitzgerald, O. Wample, H. F. Vass, A. M. Southall, W. T. Swann and W. P. Boatwright, directors.

MECHANICAL

A Mammoth Prism Skylight.

There are various interesting features in the big union railway station at Washington, D. C., an important one being the mammoth prism skylight, more than 700 feet long. This structural feature has attracted the attention of many architects and builders. This example of modern skylighting (see accompanying illustration)



A MAMMOTH PRISM SKYLIGHT.

tion) is furnishing plenty of natural light in the passenger concourse, 755 feet long, out of which the stairways open connecting with the train sheds.

Here is installed by the American Luxfer Prism Co. of Chicago the largest prism skylight ever constructed, which extends the entire length of the concourse. The glass area of this skylight is a trifle over 700x15 feet.

The contrast between the amount of light furnished by this installation and the ordinary glass roofing as installed at

The installation was made under the direction of the New York office of the American Luxfer Prism Co., Mr. W. E. Cash, manager.

The Bristol Company's Exhibit.

Among the interesting exhibits at the Chicago Electrical Show is that of the Bristol Company of Waterbury, Conn., with offices in Chicago, New York and London. The company's well-known re-

who is assisted by H. T. Carpenter, factory sales manager, and the Chicago office sales staff.

An Improved Sweeper.

The carpet sweeper is largely used in dwellings, hotels and other buildings because of the great saving in time which it effects. Recently a practical factory sweeper has been placed on the market.

This machine is called the Peerless hand sweeper. It sweeps a space 30 inches wide as fast as the operator walks and sweeps it clean, and takes up the dirt and dust on the same principle as the carpet sweeper.

The machine requires but one man to operate it, and will do the work of from

in place of the thick adobe walls, stucco or plaster will be used in tints to adapt itself to the bright sunlight. The roof is to be of red Spanish tiles.

The rooms are all on one floor well above the mist line, spacious and high. The living room is entered from the broad covered piazza, which runs the full width of the house and is connected on the inner side by means of long, French casement windows with the patio, in the center of which is a tiled basin with a fountain of Rookwood pottery in Spanish design.

The patio is terminated with a pergola running full width of end and opening into dining room in north wing. The guests' apartments, each with tiled bath, are in



AN IMPROVED SWEeper.

cording instruments are on view in section A, booth 5. These instruments are of interest in various branches of electrical industry.

The exhibit is particularly arranged in groups to show the types of recorders as used in the steam, electric generating and transmission parts of light and power systems. These include recording gauges for steam pressure and vacuum, recording thermometers for feed water, flue gases and superheated steam, switchboard re-

three to four men with brooms. It was due to these machines that the floors of the buildings at the Jamestown Exposition were kept in such splendid condition, as they were in use in all of the buildings there and were awarded a first prize.

The machine is adapted for use in foundries for sweeping sand from the floors; also for shoe factories, box factories, cotton mills, storage warehouses, railroad terminals, and, in fact, every plant that has a large floor space to keep clean.

J. S. Barren, Franklin street and West Broadway, New York, is sole agent.

The Brinson Residence.

The South has kept pace with other sections of the country not only in industrial activity, but also in general building operations. These latter include the erection of thousands of dwellings for all classes

this wing, as well as kitchen and service portion in extreme end. The library, with its built-in bookcases and vault, is in south wing and connected by private passage with owner's suite, which occupies extreme west end of wing. These apartments, with boudoir and tiled bath en suite, are arranged and designed to meet every requirement of necessity and comfort.

The house, slightly over 100 feet square, will be connected by a carriage drive with the stables, which are to be of same style and material. The formal garden, with its semi-circular arbor and quaint dial, will be laid out between the two buildings.

Sampling Concrete for Quality.

By B. G. COPE.

In a great many instances where contracts have been completed on concrete



BRISTOL COMPANY'S EXHIBIT AT CHICAGO.

the left-hand side of the picture affords a conclusive argument as to the efficiency of the Luxfer product.

On the strength of results obtained by this remarkable installation the engineers of the American Luxfer Prism Co. have been asked to co-operate with the architects in daylighting a number of large public-service buildings in various sections of the country. A feature of this particular Luxfer installation is that it is guaranteed against leakage.

cording voltmeters, ammeters and wattmeters, and a full line of portable recording wattmeters and ammeters for the transmission system and general testing work.

It has been so arranged that visitors can be shown the interior design and construction in a very clear manner.

A striking feature of the Bristol booth is a giant model of a recording voltmeter with a facsimile record.

The exhibit is in charge of the Bristol Western manager, H. P. Dennis, M. E.,

of people and residences of the more expensive kind for owners of important industrial enterprises. Such a residence as just indicated is seen illustrated herewith. This structure has been designed by Philip E. Robinson of Savannah, Ga., and Jacksonville, Fla., for George M. Brinson of Springfield, Ga., president of the Brinson Railway. The building is to be erected on three sides of a tiled court, and is an adaptation of the mission style.

The architecture is pre-eminently practical, the construction of the early California missions being followed, excepting

work the question frequently arises relative to whether or not the contractor has fulfilled the specifications in regard to mixture, etc., and the result is usually a long-drawn-out litigation. In a great number of cases the work is of such character that to determine whether or not the specifications have been followed is quite difficult. To determine in the ordinary way of taking samples by digging into the work, if the samples to be taken are to be of any value, it is necessary to take them from various sections and from the interior as well, and more so than near



THE BRINSON RESIDENCE IN GEORGIA.

the surface. If the work is a heavy arch, wall or foundation, to dig a large hole into it would not only deface it, but injure its strength, which would necessarily mean a considerable loss in money and time. The most practical method for accomplishing this result is by sampling the work by taking out a core of the material with what is known as a shot drill. This drill is made up in various sizes, but the small hand-power outfits answer the purpose in practically every instance. A hole can be run into the concrete very rapidly, a core removed, analyzed and the character of the mixture determined accurately; the holes do not injure the strength or appearance of the work. Samples can be taken at any depth desired. The writer does not know if this method of testing concrete was original with the Government, but it was used on the locks and

constant-current transformers. One of these is held in reserve, while the other supplies current to 77 60-candle-power General Electric tungsten series incandescent lamps suspended from artistic iron poles. All wiring is laid in conduits to the poles, and wires pass up the center of

horizontal the effective illumination is 50 candle-power, making the efficiency at this point about one watt per candle-power.

The series sockets with which these lamps are provided are so constructed that when a lamp is removed from the socket two contact plates of large area close together before the lamp is quite drawn out

tady, N. Y., furnished the tungsten-lamp equipments for Grosse Point and Grand Rapids.

Weinman Electric House Pump.

An accompanying illustration presents a view of the Weinman electric house pump, designed especially for domestic



FIG. 1.—TUNGSTEN SERIES INCANDESCENT LAMPS.

the pole to the lamps. The form of poles used not only gives a very substantial line construction, but makes a much more artistic appearance than the usual wooden pole. These poles and lamps are shown in Figs. 1 and 2.

One of the interesting features of this



FIG. 2.—TUNGSTEN SERIES INCANDESCENT LAMPS.

system is the radial reflector with which the lamps are equipped. This form of reflector, which was recently developed by the General Electric Co., is so constructed that the light is spread and projected very evenly over considerable area instead of being nearly all concentrated in a circle

of the socket, leaving no danger of an open circuit at any time.

Tungsten series lamps are made in 32, 40 and 60 candle-power sizes, with current ratings of 4, 5.5, 6.6 and 7.5 amperes, and are exceedingly hardy on account of the heavy short filament. They will burn for nearly 1000 hours at efficiency of from $1\frac{1}{2}$ to $1\frac{1}{4}$ watts per candle-power.

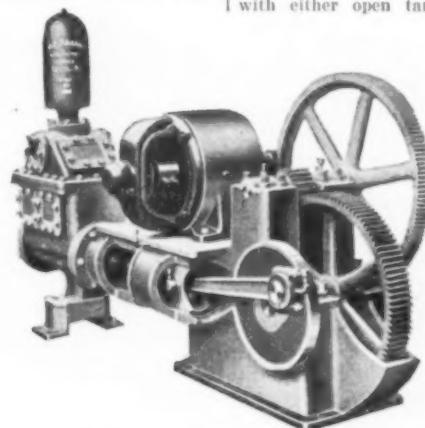
Another installation of series tungsten

use, though well adapted for a variety of other purposes. The builder of this pump believes it to be the most compact, rigid and thoroughly reliable machine of its class; in fact, almost in a class to itself.

In suburban homes and in a variety of other places where the local city water pressure is inadequate there is quite a demand for an automatic individual water system, and this pump, used in connection with either open tanks or compression



FIG. 4.—TUNGSTEN SERIES INCANDESCENT LAMPS.



WEINMAN ELECTRIC HOUSE PUMP.

lamps for street lighting has recently been made in Grand Rapids, Mich. The lamps are of 60 candle-power, and were placed on one of the principal streets of the city. Judging from the complimentary remarks of the press and the City Council, the test installation has proved highly satisfactory.

The tungsten lamp, with its high effi-

tank system, produces results equal to those obtained where the city water pressure is all that could be asked of it, and the operating expense is very light.

The gears are machine cut, the bearings babbittled, the guides bored and the cross-head babbittled and turned. The water cylinder is brass-fitted throughout. Com-

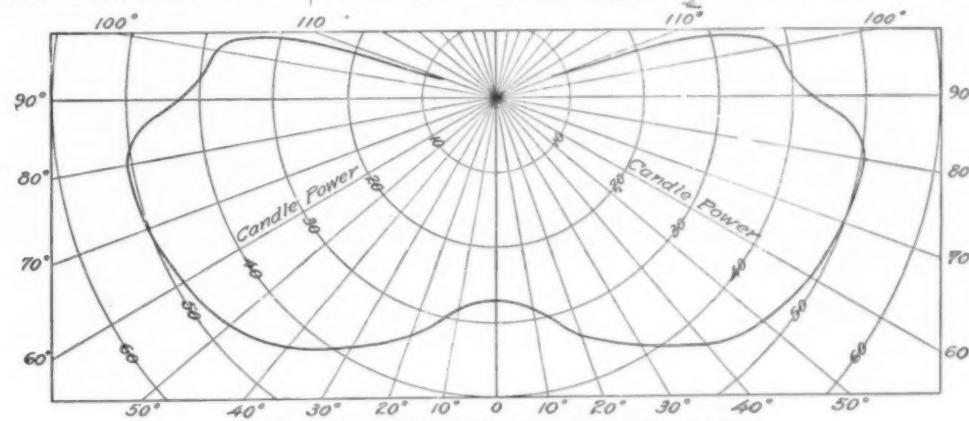


FIG. 3.—TUNGSTEN SERIES INCANDESCENT LAMPS.

around the lamp. Fig. 3 shows the candle-power distribution of a 40-candle-power series tungsten lamp equipped with a radial reflector. Fig. 4 shows one of these reflectors on a lamp. It may be seen from the diagram of the candle-power distribution that at about 30 degrees below hori-

zontal the effective illumination is 50 candle-power, making the efficiency at this point about one watt per candle-power.

The General Electric Co. of Schenec-

tic, N. Y., furnished the tungsten-lamp equipments for Grosse Point and Grand Rapids.

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SAMPLING CONCRETE FOR QUALITY.

dams on the Ohio river a few years ago, which was the first work of the kind I had ever seen. Herewith is presented a photographic view of a section of a one-and-three-quarter-inch core taken from the concrete on the Government work. This method, aside from being an absolute check on the contractor, also keeps a check on the inspector who is placed in charge of the work, or saves the cost of an inspector altogether, as no contractor will willfully deviate from his specifications knowing his work will be sampled and tested. It also gives the contractor an opportunity to prove beyond question that he has followed specifications to the letter, and leaves no room for doubt relative to the character of his work. (The Cyclone Drill Co. of Orrville, Ohio, offers a shot drill for concrete sampling.)

Tungsten Series Incandescent Lamps.

The city of Grosse Point, Mich., has recently installed a series tungsten incandescent street-lighting system, where the advantages of this kind of lighting are well exemplified. The station equipment consists of two 8.8-kilowatt $5\frac{1}{2}$ -ampere

ciency, should greatly increase the use of series incandescent lights in suburban and residential districts where the thick foliage makes it necessary to have the units distributed at short intervals to produce satisfactory illumination.

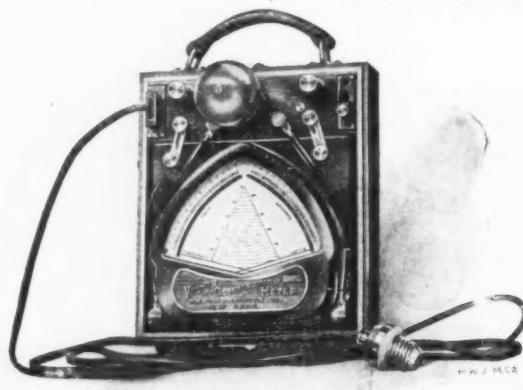
The General Electric Co. of Schenec-

tic, N. Y., furnished the tungsten-lamp equipments for Grosse Point and Grand Rapids.

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Victor Lamp-Testing Meter.

A new type of direct-current meter is offered by the H. W. Johns-Manville Company of 100 William street, New York. It is said to have many advantages for the inspector, lamp salesman, lamp manufacturer, etc.



VICTOR LAMP-TESTING METER.

The movements are built on the familiar d'Arsonval pattern, and so placed with reference to each other and the scale as to render the energy consumption directly readable at the intersection of the volt and ampere indicator needles, the special feature being the design, which enables the operator to read at one glance the pressure, current and wattage on any lamp which may be inserted in a socket immediately above the meter.

Accurate wattage measurement may be taken on a fluctuating load, as it is required to observe but a single point for such readings.

The instrument is entirely self-contained, and weighs less than 15 pounds complete.

New Type of Industrial Cars.

The Arthur Koppel Company, engineer and manufacturer of railroad equipment,

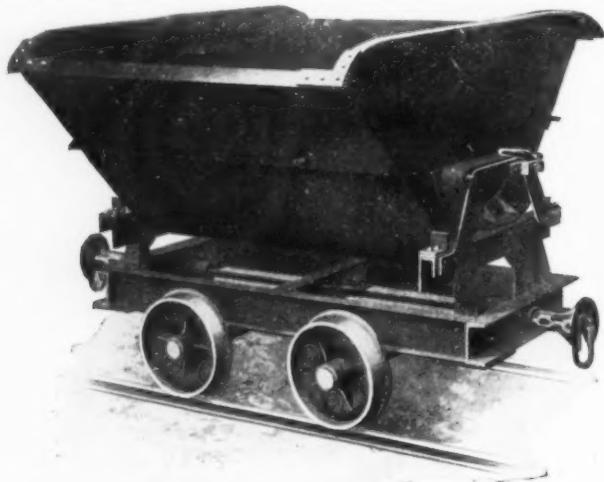


FIG. 1.—NEW TYPE INDUSTRIAL CARS.

The instrument is equipped with three self-contained shunts, one of 150 amperes capacity, having conveniently-arranged binding posts and a 1.5 and .75 ampere shunt, which is so connected within the base of the meter as to be readily thrown in circuit at will.

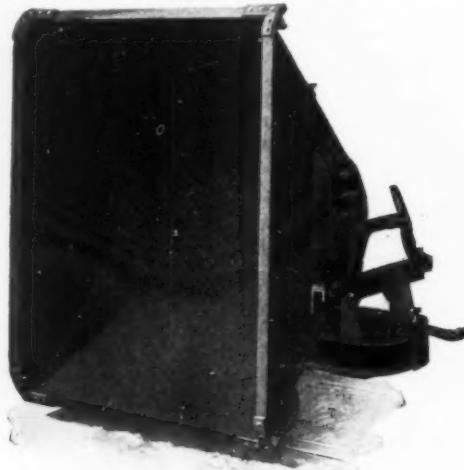
Pittsburg, Pa., has recently designed a number of new types of cars, patents for which have been applied for. These cars will be built for standard or narrow-gauge railroads in capacities of from 2 to 12 cubic yards. They are especially adapted to the requirements of contractors, rail-

illustrations, are of the Koppel double side "V" dump type, built entirely of steel and iron. A few of their advantages are:

Discharge of the load is automatically performed by dumping body; discharge takes place to side of rails, and not between rails, thus car can be unloaded at any place and does not necessitate a special installation for unloading, as is the case with car built for bottom discharge; can be discharged to either of both sides, and have not to be unloaded at both sides simultaneously, which is the case with gable-bottom car. Body of cars is one rigid unit, doing away with doors, straps,

provided with either roller, brass or babbit bearings. The cars are provided with continuous draw bars, with special draft gear and link and pin couplers.

The four and six-yard car, as per Fig. 2, is of the same general design, but of heavier construction. M. C. B. automatic couplers and spring-draft gear can be used. Elliptical springs carry the load to the journal boxes. Cars as per Fig. 2 are built for 12 cubic yards capacity. They are composed of three separate "V"-shaped bodies, each holding four cubic yards, each operating individually and having no connection with either of the others. The

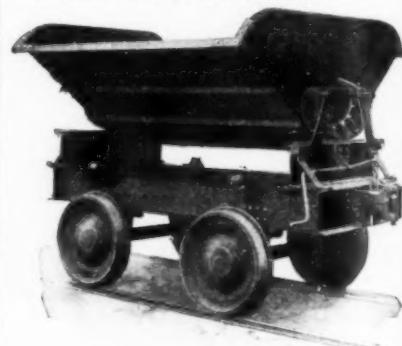


NEW TYPE INDUSTRIAL CARS.

bolts and other loose parts, and shape is such as to render it exceedingly strong. Side and end plates of body are riveted together, so that any strain on end plate is transmitted to side plate, thus eliminating a concentrated strain, and consequently wear and tear on one part. Damping of body being performed by rolling it over and outward, friction and resistance are avoided. Car can easily be dumped by one man without any mechanical assistance, and return of body requires practically no effort; a slight push will dump and bring body back to load-carrying position. Should by accident one of the bodies become damaged, it can easily be removed from car and another substituted. Cars are provided with new locking device, consisting of a simple latch located on diagonally opposite corners of body, so as to insure against accidental discharge; it can only be operated from side opposite dump; it automatically locks body when returned to load-carrying position.

These functions are of special value when considering the safety of the workers, as the operator cannot be injured by the body accidentally dumping to the wrong side, and the car will not be sub-

bodies are mounted on an underframe and standard arch-bar trucks suitable for cars of 60,000 pounds capacity. They can be provided with hand and airbrake, M. C. B. automatic couplers and spring-draft gear. One of the many advantages of making the body in three parts is the facility for repairs. Should one of the bodies become damaged so as to render it inoperative it would not interfere with the other two-thirds of the car; the damaged body could be removed and another readily substituted. Further, the dumping of the three boxes can be performed much easier



NEW TYPE INDUSTRIAL CARS.

than could one box of the same capacity as the three.

Wheeling Board of Trade.

The Wheeling Board of Trade of Wheeling, W. Va., held its annual meeting last week, and interesting annual reports were submitted. These included references to the industrial progress of the city and its advantages for other manufacturing plants and enterprises of various kinds. It was determined during the present year to make an active effort to present the advantages of Wheeling to prospective manufacturers and those seeking locations for plants in the South. The election of officers resulted as follows: President, Geo. W. Lutz; first vice-president, Geo. Hook; second vice-president, George J. Mathison; advisory board, George A. Laughlin, John Waterhouse, B. W. Peterson and H. C. Franzheim.

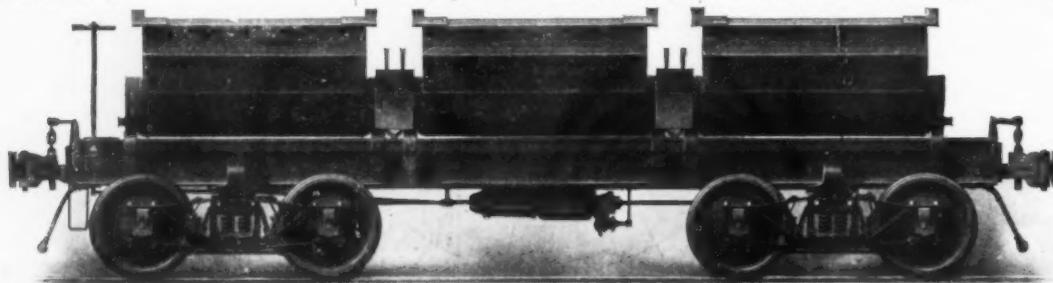


FIG. 2.—NEW TYPE INDUSTRIAL CARS.

In order to test a lamp it is only necessary to connect the attachment plug and cord to any lamp circuit, insert the lamp and read volts, amperes and watts without computation.

The different shunts may be easily

way companies, electric trolley lines, foundries, cement factories, brickyards, mines and quarries, and nearly all other industrial plants for the transportation of coal, scrap, dirt, stone, sand, slack, ashes, etc.

The cars, as shown in the accompanying

illustrations, are of the Koppel double side "V" dump type, built entirely of steel and iron. A few of their advantages are:

Discharge of the load is automatically performed by dumping body; discharge takes place to side of rails, and not between rails, thus car can be unloaded at any place and does not necessitate a special installation for unloading, as is the case with car built for bottom discharge; can be discharged to either of both sides, and have not to be unloaded at both sides simultaneously, which is the case with gable-bottom car. Body of cars is one rigid unit, doing away with doors, straps,

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

The Blacksburg Mills.

The Blacksburg (S. C.) Mills will erect buildings to have a total floor space of 32,200 square feet, main structure to be 150 feet wide by 200 feet long, with warehouse and boiler-room. J. E. Sirrine of Greenville, S. C., is preparing plans and specifications, and is the engineer in charge. It is the company's intention to install 5000 spindles and 128 40-inch looms to begin with, manufacturing 64x68 40-inch 3.15 cotton cloth. When completed the mill will employ about 70 operatives. The organization of the company and other principal facts were reported previously by the MANUFACTURERS' RECORD, including mention of G. Lang Anderson of Williamson, S. C., as president, and the capital stock as \$250,000.

The Shaw Cotton Mills.

The Shaw Cotton Mills of Weldon, N. C., has awarded contract to H. L. Driscoll of Roanoke Rapids, N. C., at \$23,700 for construction of mill buildings. This company's main structure will be of brick, two stories high, 50x150 feet, and will be equipped with 5129 frame spindles and accompanying machinery for the production of two-ply 24s to 36s cotton yarns. Contract for the textile machinery was awarded to the Mason Machine Works of Taunton, Mass., which is also engineer in charge. Some months ago the MANUFACTURERS' RECORD reported the organization of the Shaw Cotton Mills, and in December stated that construction would begin early in 1908. The company is capitalized at \$100,000, and W. T. Shaw is president.

Mill Bobbins of Paper-Fiber.

A Southern inventor is introducing a new bobbin for which important advantages are claimed. The bobbin is manufactured of paper-fiber by a secret process, beginning with the pulp, and is said to be fully equal to the wood bobbins now in general use, besides having no iron ring on the end and not splintering at any time. Dr. M. A. Bland of Charlotte, N. C., invented this bobbin, and is now having it manufactured.

Begun Construction at Lenoir.

The Moore Cotton Mill Co. of Lenoir, N. C., has begun the construction of its mill buildings, designed to accommodate 5000 spindles and accompanying equipment for the manufacture of fine cotton yarns. It was reported some months ago by the MANUFACTURERS' RECORD as organized by F. P. Moore and associates, and the principal details were mentioned. Mr. Moore was elected president; J. V. McCall, vice-president; M. G. Shearer, secretary and treasurer, and J. O. White, superintendent. The capital stock is \$100,000.

The Cedar Falls Manufacturing Co.

The Cedar Falls (N. C.) Manufacturing Co., recently reported incorporated with a capital stock of \$125,000, is a re-incorporation of an established company of the same name operating 4352 spindles and 136 looms on the production of yarns and brown sheetings. The enterprise has been controlled by O. R. Cox of Cedar Falls, but recently he retired and control of the company was obtained by J. S. Mc-

Alister of Spray, N. C., who is interested in well-known plants there. Reincorporation followed the change of management.

Kohlmann Plant at New Orleans.

Some weeks ago the MANUFACTURERS' RECORD reported the incorporation of the Kohlmann Moss & Cotton Felt Manufacturing Co. of New Orleans, La. This company succeeds Louis Kohlmann, operating a plant for manufacturing moss and vegetable hair, cotton linters, felt, etc. It is capitalized at \$15,000, and has a daily capacity of 3000 pounds; Louis Kohlmann, president; Sigmund Kohlmann, vice-president, and Erhard Mayer, secretary-treasurer; offices at 1224 St. Thomas street.

The Whitehead Hosiery Mills.

The Whitehead Hosiery Mills of Burlington, N. C., has completed the installation of plant, comprising 50 knitting machines and accompanying apparatus for the production of fine-gauge seamless hosiery. This company's organization was reported in October, when officers were elected and details decided. Its capital stock is \$100,000, with \$10,000 paid in, and R. H. Whitehead is manager. J. W. Murray is president; L. C. Chrisman, vice-president, and S. M. Hornaday, treasurer.

The Cotton Movement.

In his report for January 24 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 146 days of the present season was 7,872,403 bales, a decrease under the same period last year of 1,563,681 bales. The exports were 4,793,663 bales, a decrease of 325,529 bales. The takings were, by Northern spinners, 884,859 bales, a decrease of 621,964 bales; by Southern spinners, 160,477 bales, a decrease of 41,448 bales.

For Textile Manufacturers' Attention

Southern textile manufacturers are invited to note that the Savannah Woodenware Co. of Savannah, Ga., considers adding blankets, comforts, rugs and other heavy goods to its present offerings. The company invites manufacturers to correspond so that arrangements can be completed promptly for handling its products.

To Spin Its Yarns.

The Crescent Manufacturing Co. of Spartanburg, S. C., is planning, as reported recently, to install an equipment of machinery for spinning the cotton yarns consumed in its knitting mill, which has a daily capacity of 10,000 pairs of hosiery. It is understood that contracts have been awarded for the machinery.

The Pacolet Finishing Co.

The Pacolet Finishing Co. of Tryon, N. C., has been incorporated with a capital stock of \$125,000 by J. F. Wilcox and associates. No further details stated.

Want Cloth and Twine.

Messrs. Achilles Bacon & Co. of Salonica, Turkey, want samples, prices and full information on cloth and twine for baling tobacco leaves.

Textile Notes.

The Mocksville (N. C.) Cotton Mills, proposed company heretofore announced, has not effected organization, and will probably not complete arrangements for some months. R. B. Sanford is interested.

The Chamber of Commerce, O. P. Workman, chairman of the industrial committee, Oklahoma City, Okla., is endeavoring to complete arrangements for the organization of a company to build a cotton mill.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

Want Cloth and Twine.

Achilles Bacon & Co., Salonica, Turkey:

"Today we had an inquiry from a firm (tobacco producers) asking us if we could get for them a certain cloth and certain twine which they use in tying and making bales of tobacco leaves, and for that purpose they sent us samples of both cloth and twine. As we are not in touch with any firm in the States making such goods, we take the liberty to apply to you for introduction to any reliable firm who can furnish to us the same. We send to you under separate cover two pieces of the cloth, one white and the other black, being sold by the piece, 78 inches long and 10 or 12 inches wide, and in both ends sewed, as you will notice it; the black one must have a steady and fast dye, so that it will never spoil the tobacco if it gets moist. The tobacco firm consumes over 15,000 pairs yearly, and if the prices will be profitable we hope to introduce them to other tobacco firms and so have a yearly order of over 100,000 pairs. Also you will find samples of two kinds of twine used. Let manufacturers give us prices c. i. f. Salonica, putting in our regular commission of 5 per cent. As the tobacco season is not very far, let us have their reply by the first opportunity, so that we will have time to get our orders."

Turkish Water-Power.

Achilles Bacon & Co., Salonica, Turkey:

"Lately there has been formed in our city a corporation to erect and operate a new woolen mill with water-power in a nearby town, where they can have over 200 horse-power. They wish to have all the necessary machinery needed from the start to the end, viz., for the picking-room, card-room, eaving-room, dyeing-room, and a power-producing turbine of over 200 horse-power. They intend to use at present 2100 pounds of wool daily, and to produce cloth six feet wide, of medium quality. They applied to us for the above machinery, but as we do not know exactly what machines they will need and how many of each kind, will you do us the favor to put it in the columns of your valuable magazine and see if there is any manufacturing house who can undertake to furnish all the necessary machinery for the mill? If so, let them make their estimations and give us prices of all together and of each one separately; also say if they can furnish one or two skilled men to install the machinery and put it in motion, and what their wages will be."

Micrometer Gauges and Tools.

Paul Ruckert, Zabelstrasse 11, Gera, Reuss, Germany:

"I want firms who fabricate micrometer gauges and fine mechanical tools. I wish to vend American patents, and I ask you, therefore, to send me information."

Woodworking Machinery for Germany.

Johannes Mertens, Stadthausbrücke 25, Hamburg, Germany:

"I want to get agencies for American manufacturers of woodworking machinery. I take the liberty to give you the following specifications: Planing machines for woodworking; polishing machines; sandpaper grinding machines; saw machines and saw frames; case small planks manufacturing machines; emery wheels; box-trimming machines; baling presses; rip and cross-cut-saw machines; stock-sizing machines; nailing machines and

other boxmaking machinery; automatic box-flying machinery after Spencer's patent, etc."

Mechanical Equipment for France.

Charles Michel & Co., 82 Rue de la Folie-Mericourt, Paris, France:

"We are seeking agencies with exclusive control for saleable articles in our line. We have a warehouse well situated on the 'Avenue de la Republique' for displaying our goods. This is the most active manufacturing quarter of Paris, and the one most frequented by manufacturing and commercial buyers. You will oblige us by making this fact known to your trade."

"The above firm deals in fuel for manufacturing forges, furnaces, ovens of all kinds, blow pipes of all kinds and for all kinds of fuel or combustibles, soldering apparatus, ventilating, cooling and heating apparatus, outfitts for removing dust, vapors, etc., from factories and other places, vacuum and gas and air-compressing outfitts, sand-blast painting machines, sprayers and pumps of all kinds, tools and machinists' supplies.)

MINING**Pushing Development Work.**

Regarding a recent report that the Straight Creek Coal Mining Co. will equip its coal mines on Straight creek with electricity and open two additional mines, the MANUFACTURERS' RECORD is informed that the company will continue to push the development of its lease of 800 acres of land and of 1100 acres adjoining the lease, which it owns in fee. It expects to make two openings and handle the entire output of its three mines over its present tipple, but will extend the tipple over the valley to connect with its road on the other mountain. The mines will be equipped with electricity and Shaker screens, estimated to cost \$25,000, and the company is at present corresponding with several firms relative to this. The main offices of the company are at Cary, Bell county, Kentucky, and its mines are located on the left-hand fork of Straight creek, about three and one-half miles from Pineville. Officers of the company are Messrs. M. J. Moss, president; Robert Van Bebers, vice-president; W. B. King, treasurer, and White L. Moss, secretary and general manager. Messrs. Johnson & Johnson of Pineville are the engineers in charge of construction.

West Kentucky Coal Operators.

About 35 members of the West Kentucky Coal Operators' Association met at Old Inn, Louisville, last week and discussed general conditions of the industry. Operators are complaining of the light demand for coal, and some of them intimate that unless conditions improve within the next two months a reduction in the scale of wages for mining coal will have to be asked for next year. Officers of the association include Messrs. I. P. Barnard of Louisville, president, and D. S. Miller of Owensboro, secretary.

The first annual message of Mayor J. Barry Mahool of Baltimore has been published in pamphlet form, and will be found of great value to all students of municipal affairs in this country. It contains not only a broad review of conditions in the city and suggestions for improvement made by the Mayor, but also abridged reports of the different departments of the municipal government.

The production of petroleum in the Texas-Louisiana field in 1907, according to the *Oil Investors' Journal*, was 16,919,573 barrels, valued at \$14,815,906. Ten years' production in that field aggregated 144,829,797 barrels, valued at \$58,332,008.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "rumored" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BRIDGES, CULVERTS, VIADUCTS

Atlanta, Ga.—Commissioners of Roads and Revenues of Fulton county request that parties submitting competitive plans for ferro-concrete bridge to be constructed over Peachtree creek in Fulton county—bidders for contract for plans to be submitted February 5—furnish with plan, strain sheets, showing dimensions, unit stresses, factors of safety, loads to be carried, computed stresses, etc.; Clifford L. Anderson, chairman. (Recently mentioned.)

Berkley, Va.—J. O. Wiggs, 20 Pendleton street, recently noted to have submitted to Board of Control a proposition for erection of bridge connecting Norfolk and Berkley wards, will probably form company if city does not decide to build. Railway is contemplated in connection.

Carterton, Va.—Sils B. F. Counts, secretary Board of Commissioners, will receive bids, plans and specifications until February 8 for construction of iron bridge across Clinch river.

Charles City, Va.—Charles City County Supervisors are considering construction of bridge over the Chickahominy river.

Fort Barrancas, Fla.—Contract will be awarded February 20 for rebuilding bridge over Bayou Grande and for improving roadway leading to the Barrancas (Fla.) National Cemetery; J. W. Pope, Colonel and Chief Quartermaster, Candler Building, Atlanta, Ga. (See "Machinery Wanted.")

Fort Worth, Texas.—Tarrant county will award contract February 3 for construction of steel bridge on concrete piers across Trinity river, 24 feet wide, with carrying capacity of 3000 pounds per linear foot; C. J. Mc-Kenna, County Auditor. (See "Machinery Wanted.")

Huntsville, Mo.—Randolph county will award contract February 14 for construction of substructure and superstructure of low-truss bridge with capacity of 1200 pounds per square foot. N. A. Matlock is designing engineer; Forrest Morgan, county engineer.

Nashville, Tenn.—Davidson County Bridge Committee, J. K. Rains, chairman, has awarded contract to the Foster & Creighton

Company at \$271,000 for steel work on two bridges which are being built across the Cumberland river. Steel will be furnished by the American Bridge Co., Pittsburg, Pa.; total estimated cost, \$1,000,000. Each bridge will have three spans, one span in each to be 218 feet long and two spans in each 175 feet long; highways under the viaduct will be arched by steel girders; H. M. Jones, engineer. (Recently mentioned.)

New Orleans, La.—Penn Bridge Co., Beaver Falls, Pa., has been awarded contract at \$45,400 for erection of bridge over Bayou St. John. (Recently mentioned.)

Powhatan, Ark.—Lawrence County Railroad contemplates constructing bridge with 200-foot draw over Black river at Powhatan, expending about \$75,000. Maxwell Coffin, Little Rock, Ark., is one of principal promoters.

Richmond, Va.—Charles E. Wingo of Richmond and Willie C. Pulliam, Manchester, Va., contemplate incorporating the Manchester & Richmond Free Bridge Co. to build bridge from Richmond to Manchester.

CLAYWORKING PLANTS

Ardmore, Okla.—Reported that a pressed brick plant, costing between \$50,000 and \$100,000, which will utilize local clay deposits, will be established in Ardmore; J. S. Hershey, Galveston, Texas, general freight agent, Gulf, Colorado & Santa Fe Railroad, can give information.

Beulah, P. O. at Dickson, Tenn.—Pottery.—A. N. Kelley is organizing company to develop pottery-clay deposits at Beulah and manufacture commercial pottery, drain tile and brick.

Failing Waters, W. Va.—West Virginia Brick, Tile & Terra Cotta Co., recently incorporated, has not completed plans. Information will be given later by Charles Thyme, 451 North 18th street, Nicetown, Philadelphia, Pa.

Gainesville, Texas.—Gainesville Brick Co. has increased capital from \$60,000 to \$75,000.

Supply, Okla.—Supply Cement, Stone & Brick Co. incorporated with \$5000 capital stock by B. F. Wittrick, C. B. Irons, R. E. Innes and C. C. Devore.

COAL MINES AND COKE OVENS

Barboursville, Ky.—Barboursville Coal Co. incorporated with \$25,000 capital stock; will develop 200 acres coal lands near Barboursville; will begin operations at once; president, F. D. Sampson; secretary, F. P. Johnson; treasurer, J. S. Patterson. (Recently reported lands to be developed by F. D. Sampson.)

Barboursville, Ky.—Reported that L. Kreutzinger, 282 North Hermitage avenue, Chicago, Ill., and associates will purchase coal and timber land near Barboursville and organize Golden Creek Coal and Lumber Co. to undertake development.

Bayard, W. Va.—Cottage Street Coal Co. incorporated with \$40,000 capital stock by G. Thomas Plummer, H. F. Fulk, C. F. Fulk, all of Bayard; John Jose, Piedmont, W. Va., and others.

Charleston, W. Va.—Payton Coal Land Co. recently reported incorporated with \$150,000 capital stock by J. A. Holley and others, was organized as holding company; will not operate mines.

Chattanooga, Tenn.—Alpine Coal Co. will issue \$25,000 additional preferred stock.

Crockett, Texas.—Houston County Coal & Manufacturing Co. is continuing development of its coal properties and is planning to extend present main slope (900 feet long) 1500 to 2000 feet; then is to work each side of main slope a distance of 1500 to 2000 feet; additional machinery and equipment is to be installed, especially new hoisting engine for betterments planned; proposals are being invited for the hoisting engine. (See "Machinery Wanted.")

Kingston, Tenn.—Baker Coal & Coke Co. incorporated with \$20,000 capital stock by J. N. Baker, S. P. Sparks, D. M. Coffman and others.

Marion County, W. Va.—Pittsburg Steam Coal Co. incorporated with \$10,000 capital stock by Joseph R. Bailey, W. D. McGinnis, E. B. McGinnis, F. R. Graham and J. A. Demuth, all of Pittsburg, Pa.

Mingo County, W. Va.—Crane & Co., Cincinnati, Ohio, are reported to have purchased land in Mingo county containing coal deposits, and it is understood that a railroad will be constructed and develop-

ment undertaken. (See "Lumber-Manufacturing Plants.")

Pineville, Ky.—Straight Creek Coal Mining Co. will continue to develop 800 acres leased and 110 acres owned; will make two more openings and handle output of the three mines over present tipple, latter to be extended; present capacity of 350 tons of coal daily is to be increased to 1000 tons by September 1; mines will be equipped with electrical machinery and shaker screens, and negotiations for this equipment are now in progress. Johnson & Johnson of Pineville, engineers in charge, estimate cost of new machinery at \$25,000. Offices of company at Cary, Ky., White L. Moss, general manager, in charge. (Lately mentioned.)

Pulaski, Va.—Reported that Bertha Mineral Co. has purchased for development 3000 acres of land containing coal deposits.

St. Louis, Mo.—Sunlight Coal Co. incorporated by Charles H. Johnson and Emily Johnson.

Sulphur Springs, Texas.—Sulphur Springs Lignite Co. organized with \$10,000 capital stock; T. Coleman, president; W. A. Smith, secretary.

CONCRETE AND CEMENT PLANTS

Martinsburg, W. Va.—Reported a company will be incorporated with \$1,000,000 capital stock to establish Portland cement plant near Martinsburg by J. W. Ivery, Dillsburg, Pa.; John T. Morris, Orange, N. J.; Philip Herman, Latrobe, Pa., and B. A. Waltman and Phillip Hale, both of York, Pa. It is understood that plans and estimates for plant have been approved.

COTTON COMPRESSES AND GINS

Anadarko, Okla.—Holland Gin Co. incorporated with \$10,000 capital stock by Andy Tucker, John Green and M. E. Whitten.

Brandon, Miss.—Planters' Gin, Compress & Warehouse Co. will incorporate with \$25,000 capital stock; will install hydraulic gins and compress attached direct to gins. R. P. Walters is interested. (See "Machinery Wanted.")

ELECTRIC-LIGHT AND POWER PLANTS

Athens, La.—Athens Progressive League is endeavoring to secure construction of electric-light system; E. A. Watson, president.

Billings, Mo.—Billings Light, Power & Water Co. Incorporated with \$35,000 capital stock by S. F. Bronson, J. B. Berghaus, J. W. York and others.

Calera, Ala.—F. Stein has purchased the Calera electric-light plant, which will be operated by steam and otherwise improved.

Eureka Springs, Ark.—Interstate Hydro-Electric Light & Power Co., now developing water-power on White River, has completed head and tail race and set wheels for 500 horse-power, to be transmitted for driving sawmills and other plants. It will undertake further developments, increasing to an ultimate capacity of 5000 horse power, to be transmitted by electricity, for manufacturing, mining and other industrial purposes.

Company is constructing tunnel 2100 feet long and dam 180 feet long, with solid rock bottom and abutting on solid rock; W. D. Chesney, secretary, Rosedale Station, Kansas City, Kan. (See "Lumber Manufacturing Plants.")

Handley, Texas.—Norther Texas Traction Co., recently mentioned as undertaking improvements to power plant at Handley, will install 1500-horse-power engine, two boilers, 1500-horse-power electric generator, together with necessary pumps, condensers, etc. About \$150,000 will be expended. Contract has been awarded. W. C. Forbes is manager, Fort Worth, Texas, where general offices are located.

Morehead, Ky.—City awarded contract January 27 for construction of electric-light plant, which will be equipped with 480-horse-power automatic engine, 50-kilowatt single-phase generator, 80-horse-power boiler, etc.; plant will cost about \$5000, be operated by steam and supply current for 12 2000-candle-power arc lamps and 1000 16-candle-power incandescent lamps; Reliance Engineering Co., Fourth National Bank Building, Cleveland, Ohio, engineer. (Recently mentioned.)

Newport, Ark.—City is prepared to grant electric-light franchise. Newport Gas Co. and Pond-Decker Manufacturing Co. are bidding.

Vidalia, Ga.—City will construct electric-light plant. J. B. McCrary & Co., Atlanta, Ga., have been awarded contract and expect to begin construction work soon.

FOUNDRY AND MACHINE PLANTS

Baltimore, Md.—Gas and Electric Fixtures Good & Craft, Inc., has been incorporated with a capital stock of \$8000 to manufacture gas and electric fixtures by Abraham J. Good, 1518 West Pratt street; Elizabeth H. Good, Charles L. W. Craft and others.

Baltimore, Md.—Wagner & Schnitzer, iron founders and manufacturers of ornamental and architectural iron and bronze work, have re-established plant at 148-156 W. West street. (See "Machinery Wanted.")

Chattanooga, Tenn.—Price-Evans Foundry Co. will erect 80-foot addition to main foundry building, expending about \$3000.

Grafton, W. Va.—Patents, etc.—Patent Holding & Manufacturing Co. incorporated with \$400 capital stock by Joseph A. McLane, Claude E. Vincent, John A. McCabe and others to buy and own patents, manufacture, copper, brass, etc.

Kansas City, Mo.—Coal-dust Compressing Machinery.—William C. Renfrow, Oklahoma City, Okla., has not yet selected site for location of plant recently noted to be established for manufacture of coal-dust compressing machinery. Plans will be announced about May 1.

Meridian, Miss.—Stoves.—Reported that a Northern company contemplates establishing stove works in Meridian; Board of Trade can give information.

Natchez, Miss.—Cotton Picker.—Granville A. Humason is reported as having organized company to manufacture a cotton picker.

Pine Bluff, Ark.—Cotton Choppers.—Butler Cotton Chopper Co. organized with \$5000 capital stock to establish plant for manufacturing a mechanical cotton chopper; B. C. Butler, president; A. M. Barrow, Sr., vice-president; J. W. Allen, treasurer, and L. E. Owen, secretary.

Richmond, Va.—Morrison Machinery & Supply Co. incorporated with \$50,000 capital stock; Hackley Morrison, president; C. M. Newton, vice-president; A. W. Newton, treasurer, and H. S. Morrison, secretary.

Sikeston, Mo.—Sikeston Machine Works incorporated with \$4000 capital stock; president, Henry I. Kohn; secretary and manager, E. A. Cart; manufacture special machinery and do general repairing.

St. Louis, Mo.—Blacksmith Shop.—Mound City Horseshoeing & Blacksmithing Co. incorporated by John C. McCoy, C. F. Hoffman and Al Lueking.

Tulsa, Okla.—Stove Works.—F. E. Moore of the Sterling Stove Manufacturing Co., Pittsburgh, Pa., is considering establishment of stove works in Tulsa.

Waynesboro, Va.—Mining Machinery.—American Concentrator Co., Joplin, Mo., manufacturer of mining machinery, will establish branch plant in Waynesboro.

ICE AND COLD-STORAGE PLANTS

Birmingham, Ala.—Reported that a company will be organized with \$15,000 capital stock to establish 10-ton ice plant to supply Cleveland, Elyton, Graymont and West End with ice; bids on plant being received; J. S. Osment, T. G. McGahee, J. W. Burks and others are promoting the enterprise.

Dallas, Texas.—Pure Ice & Cold Storage Co., previously reported incorporated with \$40,000 capital stock, has begun construction work on proposed ice and cold-storage plant; 100x150 feet; four stories high eventually; cost \$100,000. Frank H. Doran is president and W. C. Jones, G. W. Talbot and D. Frank Carden are incorporators.

Decatur, Ala.—Decatur Ice & Coal Co. will double capacity of ice plant next fall; has installed boilers; daily capacity 25 tons; manager, T. W. Jenkins. (Lately mentioned.)

Dickson, Tenn.—Nashville capitalists contemplate establishing ice plant in Dickson, in which about \$15,000 will be invested. V. R. Miller of Dickson can give information.

Greeneville, Tenn.—Greeneville Ice & Refrigerator Co. (H. Reaves, F. A. Vance and G. W. Dougherty) will erect ironclad building 30x100 feet, in which to install 10-ton ice plant, costing \$10,000.

Kansas City, Mo.—American Ice Co. incorporated with \$100,000 capital stock by John M. Cleary, Clif Langdale and others.

Marianna, Ark.—Marianna Ice & Storage Co. incorporated with \$14,000 capital stock to establish ice and cold-storage plant. Contract for machinery is said to have been awarded; J. S. Wahl, president; Sterling H. McCarty, vice-president, both of Caruthersville, Mo.; E. L. Cogbill, secretary; Julius Benham, treasurer, both of Marianna, and S. T. Hardin, manager, Blytheville, Ark.

Prairie Grove, Ark.—Prairie Grove Ice & Cold Storage Co. organized to establish ice and cold-storage plant; D. H. McDonnell, Fort Smith, Ark., president; L. C. McCormick, vice-president, and J. H. Zellner, secretary-treasurer, both of Prairie Grove.

Rome, Ga.—Rome Ice Manufacturing Co. will increase capital stock from \$40,000 to \$100,000 and make improvements to plant; first expenditure to be about \$12,000; W. J. Rushton, Birmingham, Ala., president.

Stamford, Texas.—Stamford Ice & Refrigerator Co. has increased capital stock from \$25,000 to \$35,000.

Wilson, N. C.—Consolidated Ice Co. incorporated with \$125,000 capital stock by W. J. Boykin, C. N. Nursey and H. G. Connor, Jr.

Winder, Ga.—Stock company has been organized by W. L. Blassengame, Clarence Turner, W. W. Norman and others to erect ice plant. Building has been secured in which equipment will be installed.

LUMBER-MANUFACTURING PLANTS

Arkansas.—Pittsburg-Arkansas Lumber Co. incorporated with \$200,000 capital stock by R. M. Blenap and E. A. Casey, both of Pittsburg, Pa.; J. M. McInerney, Allegheny, Pa.; M. J. Gannon, Sewickly, Pa., and others.

Barboursville, Ky.—Reported that L. Kreutzinger, 287 North Hermitage avenue, Chicago, Ill., and associates contemplate organizing Golden Creek Coal & Lumber Co. to develop coal and timber land, purchase of which is under consideration.

Birmingham, Ala.—Oden-Elliott Lumber Co. incorporated with \$50,000 capital stock; J. W. Oden of Birmingham, president; J. J. Elliott, Chilbersburg, Ala., vice-president, and John H. Long of Birmingham, secretary-treasurer.

Cedars, Miss.—Cedars Manufacturing Co. recently reported incorporated (under Woodworking Plants, Vicksburg), will erect mill building and dry sheds covering approximately 20,000 square feet; cost of buildings about \$3000; cost of machinery about \$5000; will build one mile logging railway; daily capacity of plant 40,000 to 60,000 feet lumber and veneer; president, Arthur E. Chapman. (See "Machinery Wanted.")

Clinton, Ark.—Missouri & Arkansas Lumber Co. incorporated with \$150,000 capital stock by T. G. Hut, Otto Siegle, P. H. Gohn, W. L. Gurner and others.

Eureka Springs, Ark.—Inter-State Hydro-Electric Light & Power Co. is proceeding with construction of its sawmill, which will have a daily capacity of 12,000 feet of lumber, also 500-horse-power electric plant for furnishing power; head and tail race completed and water wheels are set so that lumber production can begin as soon as mill machinery arrives. W. D. Chesney, secretary, Rosedale Station, Kansas City, Kan. (See "Electric Light and Power Plants.")

Fayetteville, Ark.—J. H. Phipps Lumber Co. has increased capital stock from \$50,000 to \$100,000.

Knoxville, Tenn.—J. G. Lowe Lumber Co., 36-400-404 Depot street, recently reported incorporated, will establish plant for manufacture of building material, toilet seats and mantels; will erect frame buildings 30x60 feet and 40x60 feet at cost of \$700; cost of machinery \$2000; daily capacity building material 5000 feet. J. J. Graham, president; J. G. Lowe, general manager.

Lakewood, Fla.—Pine Land & Timber Co. incorporated with \$100,000 capital stock; W. H. Brittin, president, and E. P. Rodell, secretary-treasurer.

Liberty County, Fla.—I. E. Boyett, Montgomery, Ala., will build sawmill for development of timber land in Liberty county.

Lynchburg, Va.—Massie & Pierce incorporated with \$100,000 capital stock; R. W. Massie, president, and A. N. Pierce, secretary-treasurer, both of Lynchburg, and W. T. Bowen, Fayetteville, N. C., vice-president.

Mandeville, La.—P. H. Hansbrough is reported as having purchased pine timber land for development.

Memphis, Tenn.—L. E. Campbell Lumber Co., associated with John G. Adler, has purchased De Soto Lumber Co.'s planing mill, yards, machinery and lumber. J. E. Campbell, J. G. Adler and W. A. Breen are principal stockholders. Mr. Adler will be general manager.

Memphis, Tenn.—E. E. Williams Lumber Co. incorporated with \$10,000 capital stock by W. H. Steele, G. E. Hibbard, S. C. Major and others.

Mingo County, W. Va.—C. Crane & Co., Cincinnati, Ohio, are reported to have purchased at \$25,000 a tract of timber land in Mingo county underlaid with coal; contract for removal of the timber will be awarded at once.

Newbern, N. C.—Planing Mill.—Mills-Campbell Lumber Co. incorporated; will erect planing mill 110x44 feet; estimated cost of building and machinery, \$15,000; daily capacity, 100,000 feet North Carolina pine.

Rumer, P. O. Midway, W. Va.—F. W. McCalen and W. P. Flack will establish lumber and stave mill; will install machinery. (See "Machinery Wanted.")

Oklahoma City, Okla.—Caskill Lumber Co. incorporated with \$20,000 capital stock by E. L. Keown of Guthrie, Okla.; Andrew W. Davis and F. M. Folk, both of New York.

St. Francis, Ark.—P. & S. Lumber Co. incorporated with \$100,000 capital stock by W. F. Strangways, W. H. Philip, E. Philip and F. H. Strangways.

Turkey Creek, Fla.—Tampa Bay Land & Lumber Co., G. M. Coons, Canton, Pa., president, is not contemplating present development of 10,000 acres of timber land recently noted purchased in Hillsboro county.

MINING

Addie, N. C.—Talc.—Southern Talc Co. incorporated with \$50,000 capital stock to mine talc and other minerals by J. H. Stoddard and W. A. Stoddard, both of Chicago, Ill., and F. G. Hoffman, Beta, N. C.

Bartow, Fla.—Phosphate.—Lorenzo A. Wilson, president of Wilson-Toomer Fertilizer Co., Jacksonville, Fla.; H. J. Braker, New York city, and B. H. Brewster of Baugh & Sons, Calvert and Water streets, Baltimore, Md., will organize company to establish plant and develop the 1500 acres of phosphate land in Polk county recently reported purchased at \$335,000.

Camden, Ark.—Hibbard-Camden Co., recently reported incorporated with \$100,000 capital stock, will produce oil, carbon and gas; will probably build \$50,000 factory in Chicago. Richmond Hibbard, manager, 235 Ouachita avenue, Hot Springs, Ark.; James C. Clarey, engineer in charge, 1608 West 22d street, Chicago, Ill.

Edwards County, Texas.—Kaolin.—Texas Kaolin Co.'s plant will have daily capacity of 200 tons of pure white china clay, and will include grinding, washing and electrical machinery; cost of buildings and machinery not determined; W. E. Bradway, president, offices at 1309 Fort Dearborn Building, Chicago, Ill. (Other details heretofore stated.)

Eureka Springs, Ark.—Galena and Zinc.—Interstate Hydro-Electric Light & Power Co. plans to develop in the future zinc and galena ore properties; W. D. Chesney, secretary, Rosedale Station, Kansas City, Kan. (See "Electric Light and Power Plants.")

Hattiesburg, Miss.—Sand Gravel.—Hattiesburg Gravel & Concrete Co. organized to develop sand gravel deposits it controls and engage in concrete work, contracting for erection of buildings, bridges, etc. Machinery will be installed for separating gravel and sand and for sorting the gravel and also patent loaders for loading and unloading cars with rapidity. J. M. Chapman and J. T. Williams, both of Jackson, Ala., are principal promoters.

Hurt, Va.—Ballast.—Lane Bros. Co. of Esmond, Va., will install additional crushers and other machinery at Hurt in order to increase its facilities there for mining and crushing stone for ballast.

Jackson, Ala.—Ochre.—Jackson Color & Ochre Co., Springfield, Ill., is reported as to expend about \$25,000 in improving facilities at Jackson.

Joplin, Mo.—Marion B. Mining Co. incorporated with \$48,000 capital stock by W. A. Kirkpatrick, Charles T. Meloan, E. P. Jenkins and others.

Joplin, Mo.—Barnard Mining Co. incorporated with \$48,000 capital stock by John R. Murphy, James H. Barnard, Charles M. Sayres and others.

Joplin, Mo.—Northern Mining Co. incorporated with \$150,000 capital stock by John A. Junck, John C. Tasche, Paul Hinckelman and others.

Joplin, Mo.—Ontario Mining & Leasing Co. incorporated with \$50,000 capital stock by Sydney L. Wilkins, W. S. Bartlett and J. W. Perry.

Keeler, Okla.—En See Mining Co. incorporated with \$25,000 capital stock by W. W. McBrien, Miami, Okla.; Charles Kuder, Afton, Okla., and T. A. Cole, Baxter Springs, Kan.

Memphis, Tenn.—Sand and Gravel.—Flinn Sand & Gravel Co. incorporated with \$50,000 capital stock by M. A. Flinn, B. B. Flinn, R. W. Flinn and others.

Rome, Ga.—Bauxite.—Reported that a Philadelphia company contemplated developing bauxite deposits in Floyd county; Dickson Armstrong, Birmingham, Ala., consulting engineer.

Russellville, Ala.—Iron.—W. H. Beatty and associates have purchased iron-ore lands for development.

MISCELLANEOUS CONSTRUCTION WORK

Abbeville, La.—Drainage.—Ile Maron Drainage District of Vermilion parish has voted special tax for draining about 60,000 acres of land; bonds will be issued and work will soon begin. Address County Commissioners.

Baltimore, Md.—Vault.—Edward D. Preston, Building Inspector, City Hall, has prepared plans for construction of two-story-and-basement vault, proposed to be erected at City Hall; cost about \$40,000.

Batchelor, La.—Drainage.—Board of Commissioners, Second Drainage District of Pointe Coupee parish, will improve drainage; contract will be awarded February 20; N. P. Phillips, president. (See "Machinery Wanted.")

Greenville, Tenn.—Government Work.—War Department awarded contract to Algernon Blair, Montgomery, Ala., for construction of concrete inclosing wall, ornamental iron gates, wire fence and water supply at National Cemetery; contract price \$13,000; Major M. Gray Zalinski, quarter master, U. S. Army, in charge. (Recently incorrectly noted awarded to Singleton & Blair.)

Memphis, Tenn.—Heating.—Memphis Heating Co. incorporated with \$20,000 capital stock by J. H. Mahoney, Frank Donlon, H. R. Boyd and others.

New Orleans, La.—Land Reclamation.—Orangedale Colony Co. incorporated with \$500,000 capital stock by W. C. Kent, H. L. Favrot, N. R. Maker and M. C. Baker. It is understood that company will proceed at once with plans for reclaiming swamp lands and converting these into truck farms and orange groves.

Palmetto, Fla.—Sea Wall.—W. G. Lynch of Tampa, Fla., is planning construction of sea wall at Palmetto Beach. (See "Theaters.")

Port Arthur, Texas.—Dredging.—Bids will be received at U. S. Engineer Office, 1539 Louisiana avenue, New Orleans, La., until February 21 for dredging about 250,000 cubic yards at Port Arthur, Texas.; J. F. McIndoe, Major, Engineers. (See "Machinery Wanted.")

St. Petersburg, Fla.—Channel.—Charles Braaf has had surveys made by J. P. Titcomb, surveyor, preparatory to construction of channel extending 2500 feet outward into eight feet of water in the bay, and other improvements. (Recently mentioned.)

MISCELLANEOUS ENTERPRISES

Augusta, Ga.—Publishing.—L. C. Hayne, W. T. Field, Dr. J. T. Green and Dr. W. E. Mealing have been appointed committee to arrange for publication of the Georgia-Carolina Agriculturist. J. C. McAuliffe will be editor.

Baltimore, Md.—Grain Elevator.—Baltimore & Ohio Railroad Co., Charles and Baltimore & Ohio Railroad Co., has received new bids for proposed grain elevator to be erected at Mount Clare; M. A. Long, architect.

Baltimore, Md.—Stone Cleaning, etc.—Baltimore Stone Cleaning & Sand Blast Co. of Delaware incorporated with \$10,000 capital stock by Arthur E. Justice, 119 South Carrollton avenue; William J. Armiger, 1136 South Carroll street and Charles Matt.

Barbourville, Ky.—Laundry.—Union College proposes to install private laundry. Plans and estimates have not been prepared.

Bay City, Texas.—Land Improvement.—Portsmouth Improvement Co. incorporated with \$20,000 capital stock by W. S. Edwards, D. H. Brasfield, both of Bay City; William Carpenter, Belvins, Texas, and others.

Benmont, Texas—Oil-pipe Line.—The Texas Company has awarded contract to L. R. Davis, Houston, Texas, for construction of six-inch oil-pipe line from Sour Lake to Garrison Switch, a distance of 22 miles. (Recently mentioned.)

Berkeley, Va.—Ship-repair Plant.—Cramp Dry Dock Co., recently mentioned as organized to establish plant for repairing ships, has completed preliminary plans and working plans are now in course of preparation. Specifications call for three railways, one to accommodate ships up to 2000 tons, one 800 and the other 600 tons; largest railway will be similar to dry dock. It is understood that some changes to preliminary plans are contemplated, but actual construction work is expected to begin within three weeks. Edwin S. Cramp of Philadelphia, Pa., and 127 East 61st street, New York city, is president.

Biloxi, Miss.—Publishing.—Gulf Coast Printing Co. organized to publish morning paper.

Birmingham, Ala.—Farming, etc.—Lacy-Patton Agricultural, Mercantile & Poultry Co. incorporated with \$8000 capital stock; A. W. Lacy, president; B. S. Patton, secretary; Charley Jackson, treasurer, and J. M. Jackson, general manager.

Birmingham, Ala.—Amusement Company.—Jefferson Amusement Co. incorporated with H. C. Lovenhart, president; Rae Wise, vice-president, and William Wise, secretary-treasurer.

Birmingham, Ala.—Construction Company.—Mullarky Construction Co. incorporated with J. M. McElhaney, president; J. L. Mullarky, vice-president, and A. A. Macke, secretary-treasurer.

Charlotte, N. C.—Printing Plant.—C. H. Robinson & Co. incorporated with \$150,000 capital stock to print, publish and deal in books, stationery, etc., by C. H. and F. J. Robinson, G. A. Smith, C. A. Duckworth and others.

Charlotte, N. C.—Publishing.—Charlotte Council No. 27, United Commercial Travelers, will publish a 300-page monthly magazine to be entitled "The Dixie Traveler;" committee in charge consists of H. J. Herk, manager, assisted by R. F. Stokes, H. H. Straub and C. O. Kuester.

Conway, Ark.—Telephone System.—D. J. Hallman, Wooster, Ark., is considering construction of telephone system from Damascus, Ark., through Martinville and Wooster to Conway.

Cumberland, Md.—Natural-gas Transmission.—Western Maryland Gas Co. has applied to Legislature for amendment to charter authorizing it to lay mains for transmission of natural or artificial gas in Garrett, Allegany and Washington counties for heat, light, fuel and power purposes. Arrangements are now being made to pipe from Cumberland to Hagerstown, Md.

Danville, Va.—Land Improvement.—Suburban Land Co. incorporated with \$15,000 capital stock; A. W. Douthat, president; William H. Jones, vice-president, and W. C. Noell, secretary-treasurer.

Dothan, Ala.—Hardware.—Dothan Hardware Co. incorporated with \$15,000 capital stock by J. W. Cureton, E. C. Porte and L. D. Kirkland.

Fairfax, Mo.—Land Improvement.—White Mercantile & Land Co. incorporated with \$20,000 capital stock by E. H. White, A. F. Neal, A. C. White and others.

Fort Worth, Texas.—Oil Wells.—Panther City Oil Co. incorporated with \$10,000 capital stock by T. L. Hogle, Arthur Stratdee and J. K. White.

Fort Worth, Texas.—Land Improvement.—Martin Land Co. incorporated with \$25,000 capital stock by T. J. Marberry, Duke L. Martin, S. M. Holley and others.

Gallatin, Tenn.—Grain Elevator.—Payne-Gardner Co. will rebuild on enlarged scale grain elevator recently burned.

Grafton, W. Va.—Amusement Company.—Grafton Amusement Co. incorporated with \$5000 capital stock by John W. Gigley, C. E. Vincent, F. J. Patton and others.

Hardy, Ark.—Orchard.—Spring River Orchard Co. incorporated with \$50,000 capital stock by A. L. Doss, Emma E. Doss and Sam Doss.

Henderson, N. C.—Hardware.—Allen-Moss Hardware Co. recently reported incorporated with \$25,000 capital stock, has elected Henry Perry president; Samuel H. Allen, vice-president; George B. Allen, secretary-treasurer, and W. Ed Moss, manager.

Hope, Ark.—Hardware.—Union Hardware Co. incorporated with \$50,000 capital stock by A. A. Gibson, John S. Gibson, J. H. Waver, P. J. Tidewell, J. R. Autrey and others.

Hope Mills, N. C.—Publishing.—Cape Fear Printing Co. incorporated with \$5000 capital stock by J. C. Gilbert, J. M. McNellie, E. W. Lishley and others.

Indianola, Miss.—Laundry.—Indianola Light, Ice & Coal Co. is interested in contemplated establishment of steam laundry. (See "Machinery Wanted.")

Jacksonville, Fla.—Warehouse & Exporting Co.—Sea Island Cotton Warehouse & Exporting Co. Incorporated with \$250,000 capital stock to deal in and export cotton; will build fireproof warehouse; president, Harry Jordan, Atlanta, Ga.; vice-president, J. T. Price, Wade, Fla.; secretary, F. G. Schell, Lake Butler, Fla.; treasurer, J. Y. Blitch, Valdosta, Ga.; main offices in Jacksonville.

Jennings, La.—Oil Wells.—Great Southern Petroleum Co. organized with \$200,000 capital stock to develop oil wells. Company now controls about 1000 acres of oil lands near Jennings, and intends increasing its leased property to approximately 3000 acres; drilling will probably begin within 30 days. S. B. McConnico, New Orleans, La., president; Gustave Fuselier, vice-president; James J. Lewis, local manager; Joseph W. Lyman, treasurer, all of Eunice, La., and Sam McC. Herndon, New Orleans, La., secretary.

Jonesboro, Ark.—Land Improvement.—Enterprise Realty Co. incorporated with \$5000 capital stock by H. Russell, Dr. E. L. Ezell, James Mahone, R. H. Holmes and others.

Jonesboro, Ark.—Drugs.—John Lumpkin Drug Co. Incorporated with \$3000 capital stock by G. G. Johnson, O. Lumpkin, Minnie E. Johnson and Effie Lumpkin.

Johns, Ala.—Reported that the Tennessee Coal, Iron & Railroad Co., Woodward Building, Birmingham, Ala., has advertised for bids for erection at Johns of two-story brick building costing \$10,000, to be equipped as laboratory. New York offices, 111 Broadway.

Kansas City, Mo.—Elevator.—Waggoner-Gates Milling Co. will erect elevator with storage capacity of 200,000 bushels costing about \$25,000.

Kansas City, Mo.—Land Improvement.—Swofford Realty Co. Incorporated with \$350,000 capital stock by J. Swofford, R. T. Swofford, J. H. Powell and others.

Kansas City, Mo.—Publishing.—Mercantile Textbook Co. Incorporated with \$100,000 capital stock by William T. Reynolds, Arthur W. McArthur, J. W. Nixon and others.

Lafayette, La.—Oil Wells.—Deborah Oil Co. organized to develop oil wells; I. A. Broussard, president; D. Morel, vice-president; William Clegg, secretary-treasurer, and I. Feltel, manager.

Louisville, Ky.—Ice and Coal.—Independent Ice & Coal Co. Incorporated with \$35,000 capital stock by Emil Peter, Matt Wolf and Henry Kratz.

Memphis, Tenn.—Amusement Company.—Palace Amusement Co. Incorporated with \$5000 capital stock by Murry Cohen, J. F. Schurmeyer, Phil Cohen, Jack Amick and Julius Buck.

Memphis, Tenn.—Grain.—Stephenson-Taylor Grain Co. Incorporated with \$10,000 capital stock; J. J. Stephenson, president, and Thomas J. Taylor, Jr., secretary-treasurer; offices in Porter Building.

Nashville, Tenn.—Publishing.—E. L. Gregory, H. D. Ruhm and M. B. Young are planning to organize stock company to publish weekly newspaper.

New Orleans, La.—Electrical Fittings, etc.—Borum & Whiting Co. Incorporated with \$15,000 to deal in electrical fittings, etc.; W. G. Borum, president; Ruy D. Whiting, vice-president, and Walter L. Parker, secretary-treasurer.

Newport News, Va.—Oil Tank.—Reported that National Oil Co. contemplates building oil tank with capacity of about 20,000 gallons.

Nowata, Okla.—Oil Wells.—Tulip Oil Co. Incorporated with \$25,000 capital stock by J. A. Wettick, William L. Moore, H. C. Cheney and J. W. Glass.

Oxford, N. C.—Vehicles, etc.—Horner Bros. Co. Incorporated with \$25,000 capital stock to deal in vehicles, farming implements, etc., by Thomas G. Horner, James W. Horner, John D. Cooper, S. S. Parham and others.

Roanoke, Va.—Plumbing.—Atkinson Plumbing & Tinning Co. Incorporated with \$25,000 capital stock; J. O. Pearson, president; O. E. Atkinson, vice-president, and J. S. Atkinson, secretary-treasurer.

Sapulpa, Okla.—Oil and Gas Wells.—Laural Oil & Gas Co. will erect 1000-barrel oil tank; W. D. Richardson, president.

Savannah, Ga.—Lumber.—Durden Pine Co., 805-67 Germania Bank Building, recently reported incorporated (under "Lumber-manufacturing Plants"), will deal wholesale in long and short yellow-pine lumber; president, Frank R. Durden; vice-president, E. M. Durden; general manager, W. H. Dawson.

Sedalia, Mo.—Electrical Engineering and Contracting.—Queen City Electric Co., recently reported incorporated (under "Electric-Light and Power Plants"), will establish electrical engineering and contracting business; president, Jas. A. Capen; secretary-treasurer, W. F. Potter.

Stanton, Texas—Construction Company.—West Texas Construction Co. Incorporated with \$25,000 capital stock by E. D. Martin, Harry Sharp, Paul Konz, Charles Ebberson and others.

Straw Plains, Tenn.—Telephone System.—Straw Plains Telephone Co. Incorporated with \$5000 capital stock by I. N. White, John W. Brown, J. P. McCarty and others.

St. Louis, Mo.—Contracting.—Riley Construction Co. Incorporated by William F. Riley, Hubert Cradock, K. M. Riley and L. M. Cradock.

St. Louis, Mo.—Land Improvement.—Murray Land Co. Incorporated with \$21,000 capital stock by Anderson Gratz, L. F. Jones and Charles F. Brown, all of Kirkwood, Mo.

St. Louis, Mo.—Construction Company.—St. Louis Construction Co. Incorporated with \$150,000 capital stock by J. B. Christensen, Clayton L. Stover, John H. Elton and others.

St. Petersburg, Fla.—Telephone System.—A. P. Avery, Joe Patton and H. B. Webster have purchased telephone system of Clearwater and Tarpon Springs, Fla., which they will consolidate with present St. Petersburg system, controlled by them for some years. Improvements are contemplated, including double wire from St. Petersburg to Tampa, Fla.

St. Louis, Mo.—Building Company.—Harry W. Trimp Building & Construction Co. Incorporated with \$20,000 capital stock by Harry W. Trimp, William J. Hogan, Charles M. Reeves and others.

St. Louis, Mo.—Construction Company.—M. J. Toft Construction Co. Incorporated with \$3000 capital stock by Charles E. Nohl of St. Louis and Martin J. Toft, Dora Toft, both of Webster Groves, Mo.

Turboro, N. C.—Land Company.—Cotton Belt Land Co. Incorporated with \$100,000 capital stock to deal in and cultivate cotton and other lands.

Tulsa, Okla.—Oil Wells.—Oklahoma Petroleum Co. Incorporated with \$10,000,000 capital stock by William Morgan Robbins, John Montague Hayner and John Henry Rogers.

Tuscumbia, Mo.—Telephone System.—Tuscumbia Telephone Co. Incorporated by W. D. Dickson, C. E. Noell, L. N. Musser and others.

Venus, Texas.—Telephone System.—Venus Telephone Co. Incorporated with \$3000 capital stock by A. D. Frost, J. W. Bassett and C. L. Barker.

Walters, Okla.—Printing.—Walters Printing Co. Incorporated by J. W. Johnson, Horace W. Johnson and Joe English.

Weston, W. Va.—Publishing.—Republican Publishing Co. Incorporated with \$5000 capital stock by George Wooster, J. M. Foster, George Snyder, W. E. Hardman and others.

MISCELLANEOUS MANUFACTURING PLANTS

Attalla, Ala.—Grist Mill.—Brown Milling Co.'s grist mill, recently noted to be erected, will be four-story building, 38x56 feet; cost of building, \$4000; cost of machinery, \$7000; daily capacity, 2500 bushels meal and feedstuff; engineer, E. L. Willson; architect, M. H. Templin. (See "Machinery Wanted.")

Baltimore, Md.—Bottling Plant.—Jack Cranston Company, Augusta, Ga., has leased four-story warehouse at Grant and Mercer streets for distributing and bottling plant. Improvements will be made to building and machinery installed.

Baltimore, Md.—Shoes.—W. S. Hendrickson Shoe Co. Incorporated with \$15,000 capital stock to manufacture and sell shoes by William S. Hendrickson, 434 East North avenue; James H. Lassell, Warren G. Thayer and others.

Baltimore, Md.—Sails and Awnings.—Stevenson-McGee Company, 220-224 Boston street, Incorporated with capital stock of \$5000 to manufacture sails, awnings, tents, flags, bunting and boat supplies by Edwin D. Stevenson, Edward E. Moore, Harry R. Webster, John E. McKinnon and C. L. Merriken.

Blytheville, Ark.—Creamery.—Hollipeter & Jontz will erect creamery.

Botetourt, Va.—Tramway Manufacturing.—Botetourt Tramway Co. Incorporated with \$40,000 capital stock to take over patents of Aerial Tramway Co.; W. C. Lawson, president; C. W. Compton, vice-president, and M. M. Caldwell, secretary-treasurer.

Bristol, Tenn.—Stock and Poultry Food.—Wood Food Co. Incorporated with \$10,000 capital stock; president, P. H. Wood; vice-president, W. H. Nickels; secretary, W. P. Nickels; manager, J. H. Minnich; will manufacture stock and poultry food.

Brundidge, Ala.—Fertilizer Factory.—A. J. Stewart, Atlanta, Ga., is promoting organ-

ization of company with \$40,000 capital stock to establish fertilizer factory at Brundidge.

Brundidge, Ala.—Cottonseed-oil Mill.—A. J. Stewart, Atlanta, Ga., is promoting organization of company, capitalized at \$40,000, to establish cottonseed-oil mill.

Cedar Hill, Tenn.—Milling.—Cedar Hill Milling Co. Incorporated with \$10,000 capital stock by William McMurry, J. D. Brown, G. T. Parrish and others.

Chattanooga, Tenn.—Bottling Works and Candy Factory.—Royal Bottling & Candy Co. Incorporated with \$10,000 capital stock to establish bottling works and candy factory by W. P. Cahill, C. H. Brown, J. J. Gillespie and others.

Chattanooga, Tenn.—Harness Device.—Foster-Bedell Manufacturing Co. will be incorporated with \$10,000 capital stock by S. P. Foster and C. A. Bedell to manufacture a harness device.

Chattanooga, Tenn.—Bottling Works and Candy Factory.—Royal Bottling & Candy Co. Incorporated with \$10,000 capital stock by W. P. Cahill, C. H. Brown, J. W. Gillespie and others.

Fort Smith, Ark.—Trousers Factory.—Woods Manufacturing Co. Incorporated with \$50,000 capital stock to manufacture trousers and overalls. R. T. Powell, contractor, has completed erection of factory buildings, two stories and basement, 50x150 feet. In which 100 machines will be installed at first; about \$25,000 will be expended for building and equipment; Z. A. Woods, president; R. T. Powell, vice-president; C. R. Woods, secretary-treasurer, and Philip Blass, superintendent. Messrs. Woods were formerly of Jackson, Tenn. (Mentioned in December.)

Guthrie, Okla.—Lime Works.—Newela Lime Works Incorporated with \$50,000 capital stock by E. L. Keown of Guthrie and others.

Hattiesburg, Miss.—Bottling Works.—H. B. Champion of the Pepsi-Cola Manufacturing Co., Newbern, N. C., contemplates organizing company to establish bottling works in Hattiesburg.

Hickman, Ky.—Slaughter-house and Packing Plant.—W. G. Reynolds & Sons, Union City, Ky., will establish slaughter-house and packing plant in Hickman.

Horse Cave, Ky.—Tobacco Factory.—American Society of Equity is organizing company with \$100,000 capital stock to establish factory for manufacturing pooled tobacco at Horse Cave.

Hop Springs, Ark.—Airship Factory.—Company has been organized with \$50,000 capital stock to manufacture airships by Dr. W. H. McConnell, J. T. Rice, R. A. Bayles, S. W. Errolson and S. W. Leslie.

Kansas City, Mo.—Manufacturing.—Gille Manufacturing Co. Incorporated with \$75,000 capital stock by J. M. Gille, W. W. Wetter, William H. Grant and others.

Lafollette, Tenn.—Flour Mill.—W. M. Ausmus, Oldtown, Ky., will erect roller flour mill.

Little Rock, Ark.—Gas Works.—Domestic Gas Manufacturing Co., Southern Trust Building, recently noted incorporated with \$300,000 capital stock to continue Domestic Gas Co., will erect building; character not decided; Park Heaton, secretary and treasurer; H. L. Burton, president.

Live Oak, Fla.—Manufacturing.—Live Oak Manufacturing Co. Incorporated with \$100,000 capital stock; George E. Porter, president, and George E. Porter, Jr., secretary-treasurer.

Louisville, Ky.—Manufacturing.—Chemaloid Manufacturing Co. Incorporated by John Rohrman, Charles C. Sylvester and Lawrence S. Leopold.

Louisville, Ky.—Clothing Factory.—Louisville Cloak & Suit Co. Incorporated with \$22,000 capital stock by Cornelius R. O'Brien, Louis Benjamin, Slex Benjamin and Charles Merriken.

Macon, Ga.—Bottling Works.—Haley & Co. Incorporated with \$1500 capital stock and privilege of increasing to \$100,000 to manufacture and bottle beverages by Herbert F. Haley, Henry Horne and Malcolm D. Jones.

Muskogee, Okla.—Packing and Provision Plant.—Oklahoma Packing & Provision Co. Incorporated with \$500,000 capital stock by G. D. Sleeper and H. G. Baker, both of Muskogee; Julius T. Foerster, Marcellus W. Meek and Ernest W. Meyer, all of Chicago, Ill.

Nashville, Tenn.—Auto Tires.—Inner Shoe Tire Co., Grand Rapids, Mich., is reported to establish plant in Nashville.

Nashville, Tenn.—Bakery.—Retail Grocers and Merchants' Association, Harold Scott, secretary, contemplates incorporating company with \$15,000 capital stock to establish bakery and confectionery.

Nashville, Tenn.—Shoes.—J. W. Carter

Company Incorporated with \$150,000 capital stock to manufacture shoes, boots and leather findings by J. W. Carter, J. F. Jarman, C. A. Golding and others.

Nashville, Tenn.—Chemical Manufacturing.—The Pepsol Company has increased capital stock from \$10,000 to \$25,000.

Nashville, Tenn.—Suspender Factory.—Dodd Manufacturing Co. has changed name to Dodd-Comer Manufacturing Co. and increased capital stock from \$10,000 to \$30,000.

New Orleans, La.—Coffey Mills, etc.—Cage-Drew Coffee Co. and Louisiana Sugar & Rice Co. have consolidated and reorganized as the Cage-Drew Co. with \$75,000 capital stock, and will continue the Cage-Drew Coffee Co., deal in rice and molasses and manufacture candy. J. C. Drew is president, E. R. Gogreve and G. H. S. Welsch vice-presidents, all of New Orleans, and Drew Ferguson, Homer, Ga., secretary-treasurer.

Orange, Texas.—Gas Plant.—W. T. Angel, Chicago, Ill., is reported as preparing to establish gas plant in Orange, for which franchise has been secured.

Parkersburg, W. Va.—Roofing Plant.—Scott Roofing Co., Cincinnati, Ohio, will establish plant in Parkersburg for manufacturing roofing. Building has been secured.

Pensacola, Fla.—Whiting.—Import Whiting & Manufacturing Co. organized to manufacture whiting (refined rough chalk), used chiefly in rubber goods, kalsomine, mixed paint, oilcloths, etc. Company has secured the old Curry plant, which it has remodeled under direction of John Dougherty, superintendent; W. Nash Read, president; Isaac W. Read, Nashville, Tenn., vice-president, and J. S. Reese of Pensacola, secretary.

Pine Bluff, Ark.—Cigar Factory.—The F. M. Altschul Company Incorporated with \$10,000 capital stock to succeed F. M. Altschul, cigar manufacturer; Morris Altschul, president and treasurer; Mrs. F. M. Altschul, vice-president, and Sam J. Altschul, secretary.

Raleigh, N. C.—Bottling Works.—Celico Bottling Works has secured factory building, which it will equip as bottling plant.

Richmond, Va.—Distillery.—Darbytown Distilling Co. Incorporated with \$25,000 capital stock; Z. V. Hooker, president; H. C. Hooker, vice-president; T. A. Roberts, general manager, and John Thompson, secretary-treasurer.

Rome, Ga.—Marble and Granite Works.—Georgia Granite & Marble Co. Incorporated with \$12,000 capital stock by J. H. Taylor, J. Bailey Gordon, H. E. Kelley, J. A. Glover and others, all of Rome, Ga., and H. P. Colvard, Dalton, Ga. (This company mentioned in December to be organized by Mr. Taylor and associates.)

Rome, Ga.—Chewing-gum, Candies, etc.—Novelty Gum Co. Incorporated with \$10,000 capital stock to manufacture chewing-gum, candies, etc., by John R. Jones and Robert F. Jones.

St. Francis, Ark.—Flour Mill.—Farmers' Union Roller Mill Co. Incorporated with \$10,000 capital stock.

St. Louis, Mo.—Labels, etc.—St. Louis Sticker Co. Incorporated with \$10,000 capital stock by William J. Hesse, Maurice M. Koenigsberg and Rosa Lee Hesse.

St. Louis, Mo.—Clothing.—Marglous & Son Manufacturing Co. Incorporated with \$50,000 capital stock by A. J. Marglous, Morris A. Marglous, Theodore H. Marglous and Meyer Marglous.

St. Louis, Mo.—Manufacturing.—Otto J. Boehmer, Holland Building, has prepared plans for factory building 50x80 feet; brick and stone; gas and electric fixtures.

St. Louis, Mo.—Paper-cutter Manufacturing.—American Paper Cutter Manufacturing Co., 324 South 3d street, has purchased and will remodel old plant of A. Leschen's Sons Rope Co.; purchase price \$35,000. It is understood that company will probably undertake several new lines of manufacture; Lep P. Rexford, president.

Sykesville, Md.—Pickle and Preserving Plant.—Lutz & Schramm, Allegheny, Pa., contemplate establishment of pickle, preserve and catsup factory in Sykesville.

Tampa, Fla.—Bakery.—F. W. Mohr has erected two-story brick building at a cost of \$14,000 which will be equipped as bakery.

Vidalia, Ga.—Building Stone.—Towns & Crawford are reported as erecting plant for manufacturing artificial building stone.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Palmetto, Fla.—Tampa Northern Railroad Co. is proceeding with improvements at Palmetto Beach; has begun construction of

roundhouse and 50,000-gallon steel water tank on 50-foot steel frame; plans also include construction of repair shops, 90x160 feet. A 70-foot turntable, with concrete and pile foundation, has been completed; it is at present operated by hand, but later will be turned by electric motor. W. J. McGee, M. M., Tampa, Fla., is in charge of entire mechanical equipment and of local construction. (Recently referred to.)

ROAD AND STREET IMPROVEMENTS

Annapolis, Md.—Legislature will be petitioned to authorize issuance of \$25,000 street-improvement bonds. Address The Mayor.

Atlanta, Ga.—City contemplates street and sewer improvements during 1908; contract for work will be awarded February 17; R. M. Clayton, City Engineer. (See "Machinery Wanted.")

Baltimore, Md.—Board of Awards, City Hall, has awarded contract to Patrick F. Reddington & Sons, 321 St. Paul street, at \$3.87 per square yard for paving Franklin street between Pennsylvania avenue and Euclid street with granite blocks.

Charles City, Va.—Charles City County Supervisors are considering road improvements. (See "Machinery Wanted.")

Fort Barrancas, Fla.—J. W. Pope, Colonel and Chief Quartermaster, Candler Building, Atlanta, Ga., will award contract February 20 for improving roadway leading to the Barrancas (Fla.) National Cemetery. (See "Bridges, Culverts, Viaducts, etc.")

Gadsden, Ala.—City has transferred contract previously mentioned awarded to Leslie L. Lockwood, Bessemer, Ala., at \$38,829.05 to Bigler Bros., also of Bessemer, for 20,000 square yards of cement sidewalk paving and 30,000 linear feet of combined curb and gutter.

Graham, Va.—City will vote on issuance of \$20,000 of bonds for street improvements and improvements and extension of water-works system. Address The Mayor.

Lexington, Ky.—Joint improvement committee will ask for an apportionment of \$94,117.60 for street improvements. Address The Mayor.

Muskogee, Okla.—City is reported as now inviting bids for 10 miles of street paving to cost about \$400,000 and 10 miles of cement sidewalks. M. A. Earl, consulting and city engineer. (Recently mentioned.)

Newbern, N. C.—City will ask bids within next 30 or 40 days on street improvements recently mentioned; about 12 miles of granolithic sidewalk to be laid; streets to be paved with concrete and curbed with granite; \$100,000 available to begin work; Colvin & Henry, city engineers. (See "Machinery Wanted.")

Orange, Texas.—City will vote February 18 on issuance of \$15,000 of bonds for improvement and drainage of streets. Address The Mayor.

Pascagoula, Miss.—City will expend \$40,000 in road and street improvements; will construct breakwater and shell driveway on two miles of beach front at cost of \$10,000; street paving, with city mapping, etc., to cost \$30,000; plans in charge of City Improvement Committee, J. D. Clark, chairman; engineer not selected.

Richmond, Va.—City has appropriated \$30,000 for construction of Church Hill boulevard. Address The Mayor.

SEWER CONSTRUCTION

Baltimore, Md.—Board of Awards, City Hall, will receive bids until February 19 for building west low-level interceptor, Section No. 3; this is part of sewerage system now under construction which has been frequently mentioned. (See "Machinery Wanted.")

Bartlesville, Okla.—City's sewer construction, recently mentioned, will include about six miles of sanitary sewers and one mile storm sewer; contract for sanitary sewers to be let January 27 and for storm sewer about February 15; E. C. D'Yarmett, City Engineer.

Carterville, Mo.—City will construct 12,000 feet sewers; bids will be received until February 6 by H. E. Moody, City Clerk. (See "Machinery Wanted.")

Columbia, Miss.—City will install sewerage system and water-works to cost \$50,000; Xavier A. Kramer, Magnolia, Miss., consulting engineer. (Bond issue mentioned in December.)

Gallatin, Tenn.—Bids are invited for material and construction of about 900 feet of sewerage. Address Fred S. Day, engineer.

Pascagoula, Miss.—City will construct sanitary sewer system at cost of \$20,000; en-

gineer not selected; plans in charge of City Improvement Committee, J. D. Clark, chairman.

Washington, D. C.—H. L. Pettus, Q. M. office Consulting Quartermaster, Walter Reed Army General Hospital, Takoma Substation, will receive proposals until February 24 to construct sewer system on Walter Reed Army General Hospital reservation, including sewage tank, pump pit, pumps and motors. (See "Machinery Wanted.")

TEXTILE MILLS

Blacksburg, S. C.—Cotton Cloth.—Blacksburg Mills will erect main building, 150x200 feet, warehouse and boiler-room; all to have floor space of 32,200 square feet; plans and specifications by J. E. Stirring of Greenville, S. C., who is engineer in charge. Company will install 5000 spindles and 128 looms to begin with and manufacture cotton cloth. G. Lang Anderson of Williamson, S. C., is president. (Organization of company and other facts recently mentioned.)

Burlington, N. C.—Cotton Hosiery.—Whitehead Hosiery Mills, previously reported organized, etc., has completed installation of plant, comprising 50 knitting machines. All equipment has been purchased except 9 to 12-horse-power gasoline engine; R. H. Whitehead, manager. (See "Machinery Wanted.")

Cedar Falls, N. C.—Yarns and Sheetings.—Cedar Falls Manufacturing Co., recently reported incorporated with capital stock of \$125,000, is reincorporation of established company operating 4352 spindles, 136 looms, etc., producing yarns and sheetings.

Fort Worth, Texas—Cotton Goods.—The Farmers' Union, D. J. Neill, president, expects to complete arrangements soon for the organization of proposed \$500,000 cotton-mill company lately referred to; architects will be chosen to prepare plans for buildings.

Lenoir, N. C.—Cotton Yarns.—Moore Cotton Mill Co. has begun construction of buildings for equipment of 5000 spindles and accompanying apparatus to manufacture fine yarns. It was previously reported as organized with capital stock of \$100,000 and F. P. Moore president.

Mocksville, N. C.—Cotton Yarns.—Mocksville Cotton Mills, proposed company hereto fore announced, has not effected organization, and will probably not complete arrangements for some months. R. B. Sanford is interested.

New Orleans, La.—Moss and Cotton Felt.—Kohlmann Moss & Cotton Felt Manufacturing Co., previously reported incorporated with capital stock of \$15,000, succeeds Louis Kohlmann; product, moss and vegetable hair, cotton flinters, felt, etc.; daily capacity, 3000 pounds; offices, 1224 St. Thomas street.

Pendleton, S. C.—Cotton Yarns.—Pendleton Cotton Mills is reported as having awarded contract for 8000 spindles additional to present equipment; company was reported some time ago to build an addition.

Spartanburg, S. C.—Cotton Yarns.—Crescent Manufacturing Co. is planning, as reported recently, to install equipment for spinning the cotton yarns consumed in its knitting mill; contracts for machinery are said to have been awarded.

Tryon, N. C.—Finishing Plant.—Pacolet Finishing Co. incorporated with capital stock of \$125,000 by J. F. Wilcox and others.

Weldon, N. C.—Cotton Yarns.—Shaw Cotton Mills has awarded contract to H. L. Driscoll of Roanoke Rapids, N. C., at \$23,700, for erection of mill buildings; main structure two stories high, of brick, 50x150 feet; will be equipped with 5129 frame spindles, manufacturing two-ply 24s to 36s cotton yarns. Gas engine and producer will comprise power plant. Mason Machine Works, Taunton, Mass., engineer in charge and contractor for textile machinery; W. T. Shaw, president of Shaw Cotton Mills. (Organization and plans of Shaw Company reported in December and previously.)

WATER-WORKS

Amarillo, Texas.—Amarillo Street Railway Co. has applied for 20-year franchise to furnish city with water.

Athens, La.—Athens Progressive League, E. A. Watson, president, is considering construction of water-works.

Columbia, Miss.—City will install sewerage system and water-works to cost \$50,000; Xavier A. Kramer, Magnolia, Miss., consulting engineer. (Bond issue mentioned in December.)

Dallas, Texas.—J. M. Bassett, chief engineer of water-works, has submitted to Municipal Commission sketch for floor plans for new engine-house, which, with equipment, including 10,000-gallon pumping engine, is estimated to cost \$150,000. D. F. Sullivan,

Commissioner, has submitted plans and specifications for the pump, which have been approved, and bids for building the pump will be opened March 3. Other improvements include construction of reinforced concrete conduit from Turtle creek reservoirs to station, suction well 10x40 feet, reservoir, etc. Bonds amounting to \$500,000 are now being advertised for sale. J. B. Winslett, City Secretary. (Recently mentioned.) (See "Machinery Wanted.")

Florala, Ala.—City is inviting bids for construction of water-works, cost not to exceed \$20,000; R. A. French, Mayor.

Fort Morgan, Ala.—Contract will be awarded February 14 for extension of water-distribution system. Address Capt. Louis F. Garrard, Jr. (See "Machinery Wanted.")

Graham, Va.—City will vote on issuance of \$20,000 of bonds for extension and improvement of water-works and street improvements. Address The Mayor.

Lancaster, Texas.—Reported that city contemplates improvements to water-works. Address The Mayor.

Lawton, Okla.—City has awarded contract to Kerby, Mayfield & Shaw at \$20,000 for construction of water-works system for Fifth ward.

Leslie, Ark.—Williams Cooperage Co. will install water-works.

Maysville, Ky.—Maysville Water Co. has increased capital stock from \$100,000 to \$200,000.

Pascagoula, Miss.—City will establish water-works at cost of \$40,000; engineer not selected; plans in charge of city improvement committee, J. D. Clark, chairman.

Rome, Ga.—Board of Public Works will expend \$33,000 additional in extension of water mains over territory not originally included in plans; order for cast-iron pipe will be increased from 250 to 620 tons; bids have been accepted for material to be used in constructing both sewer and water mains; bond issue of \$150,000 for improvements was voted last May, and civil engineers in charge of J. N. Hazlehurst, consulting engineer, Atlanta, Ga., have completed preliminary surveys. (Previously mentioned.)

Temple, Texas.—R. T. Fleming and Frank L. Denison, Board of Water Commissioners, are consulting with hydraulic engineers of Dallas relative to increasing capacity of water-works system recently purchased at \$120,000 from Temple Water-Works Co. Improvements will cost about \$30,000 and will include new pumping station (with exception of pumps) in city, installation at river station of two new boilers to operate two pumps of 1,000,000 and 1,500,000 gallons, respectively, and laying of additional mains. (Mentioned in November.)

Vidalia, Ga.—City will construct water-works; contract has been awarded to J. B. McRae & Co., Atlanta, Ga., and it is expected that construction work will begin soon.

WOODWORKING PLANTS

Algood, Tenn.—Hoops and Handles.—Forest Products Manufacturing Co., recently reported incorporated (under "Lumber Manufacturing Plants, Livingston, Tenn."), will establish plant for manufacture of oak hoops and broom handles; cost of building and machinery, from \$5000 to \$6000; capacity about two cars daily; H. E. Speyer, manager.

Athens, La.—Athens Progressive League is promoting establishment of box factory; E. A. Watson, president.

Cocoonut Grove, Fla.—Boxes.—Biscayne Fruit & Box Co. incorporated with \$10,000 capital stock; F. L. Church, president, and W. A. Hobbs, secretary.

Greensboro, N. C.—Buckets, etc.—Love-Cochran Manufacturing Co. incorporated with \$15,000 capital stock to manufacture buckets, step-ladders, washboards, etc., by W. E. Cochran, E. C. Love and W. H. Love.

Helena, Ark.—Veneer and Box Factory.—W. D. Reeves Lumber Co. will rebuild veneer and box factory recently reported burned; 300-horse-power plant; electric-driven.

Knoxville, Tenn.—Toilet Seats and Mantels.—J. G. Lowe Lumber Co., 396-400-404 Depot street, incorporated with J. G. Graham president, Alex. Kennedy vice-president and J. G. Lowe secretary-treasurer and general manager; will erect frame buildings 30x60 and 40x60 feet at cost of \$700; cost of machinery \$2000; will make toilet seats and mantels; daily capacity 100 seats and one dozen mantels; will also manufacture building material. (See "Lumber Manufacturing Plants.")

New Orleans, La.—Trunks.—New Orleans Trunk Co., Herman Davis, president, has purchased the Pallet Building, 32x170 feet, at \$40,000 and is understood to be planning the erection of trunk factory and office building.

Oklahoma City, Okla.—Poultry Coops.—Fowler Folding Poultry Coop Co. organized with \$30,000 capital stock to manufacture coops by Dr. J. M. Postle and Ira A. Kness, both of Oklahoma, and C. L. Berkley, Charles-ton, Ill.

Vidalia, Ga.—Coffins and Caskets.—Vidalia Coffin & Casket Co. incorporated with \$25,000 capital stock and privilege of increasing to \$75,000; J. W. Crawford, president and general manager; James McNatt, vice-president, and D. H. McCloskey, secretary-treasurer.

Wilmington, N. C.—Box Shooks.—Lingo Box Co. incorporated and secured site on 10 acres near Wilmington on which to erect plant for manufacturing box shooks with annual capacity of 5,000,000 feet. Plans for factory have been accepted as prepared by D. J. Adkins, who will be vice-president of company. Other officers are: R. D. Lingo, president and treasurer, and J. H. Layton, secretary and general manager.

BURNED

Altus, Ark.—James Snell's residence; loss \$1000.

Baltimore, Md.—Standard Oil Company's tanks at Canton; loss about \$45,000. Baltimore more offices in Maryland Trust Building, Calvert and German streets; New York offices at 26 Broadway.

Baltimore, Md.—Buildings at Saratoga and Holliday streets occupied by J. Register's Sons Company, Zion Independent German Lutheran Church, City Hall Annex, E. B. Read & Sons' Company, Flynn & Enrich Company, Leonhardt Wagon Co. and William L. Hollingsworth Company; total loss about \$100,000.

Benomont, Texas.—Jossey-Miller Grain Co.'s warehouse, elevator and grist mill; loss on building \$10,000.

Bennettsville, S. C.—Skye Hotel, owned by A. J. Matheson and conducted by J. F. Jones; loss \$12,000; C. E. Exum's store buildings; loss \$18,000; J. H. Hudson's residence; loss \$10,000; A. J. Bristow's residence; loss \$4500.

Brick, Ala.—J. T. Letsinger's cotton gin; estimated loss \$1000.

Center, Texas.—Zach Booth's saddlery.

Charlestow, W. Va.—Levi Porter's barn; loss \$12,000.

Clarksburg, W. Va.—Jameson & Martin business building; W. W. Jameson, Salem, W. Va., owner; loss \$12,000.

Covington, Ky.—Covington Coal Co.'s coal elevator; loss about \$30,000.

Crawford, Ga.—Crawford Oil Mills; loss \$30,000.

Decatur, Ga.—Schley Howard's residence; loss \$15,000.

Elberton, Ga.—Elberton Planing Mills' concrete plant.

Eros, La.—Tremont & Gulf Railroad Co.'s depot; loss \$10,000; J. H. Scott, superintendent and chief engineer, Tremont, La.

Fort Defiance, Va.—Samuel M. McCue's barn; loss \$5000.

Gallatin, Tenn.—Payne-Gardner Company's grain elevator.

Gordonsville, Va.—Reed McLane's residence; estimated loss \$5000.

Henderson, Ky.—Delker Bros. Buggy Co.'s storage building. (Not factory, as recently incorrectly reported.)

Hopkinsville, Ky.—James A. Coleman's tobacco barn.

Huntington, W. Va.—Frank A. Johnston's lumber mills on Laurel creek; loss \$20,000.

Jefferson City, Tenn.—Imperial Hotel; loss \$3700.

Kansas City, Mo.—W. H. F. Doerr's residence.

Leeds, Ala.—A. M. Spruell's cotton gin and mill; loss \$2000.

Little Rock, Ark.—Dickinson Mill Co.'s plant; loss \$45,000.

Marion, S. C.—Marion Tobacco Co.'s tobacco warehouse, tobacco prizehouse and guano warehouse; J. L. Abbott, manager.

Newport News, Va.—Masonic Lodge building; loss \$6000.

Norfolk, Va.—A. C. Cromwell's residence; loss \$5000.

Ocean View, Va.—Bay Shore Railway Co.'s pavilion and bathhouses; Avoca Club building; W. S. Foster's residence; loss about \$25,000.

Pocahontas, Ark.—Pocahontas Roller Mills, owned by E. Dalton; loss \$12,000.

Punta Gorda, Fla.—E. M. Putnam's turpentine distillery; loss \$3000.

Purcellville, Va.—Purcellville Foundry Co.'s plant; loss \$3000.

Shelbyville, Tenn.—Baptist Church. Address The Pastor, Baptist Congregation.

Thurmond, W. Va.—Hurvitz & Lopinsky's store building; R. E. Duncan's store building; Harrison Ash's residence; Thurmond Theater; total loss \$25,000.

Vicksburg, Miss.—Elks' Club; Presbyterian Church; loss about \$35,000.

Wallburg, N. C.—Main building of Liberty Institute, conducted by Liberty and Piedmont Baptist Association; Prof. P. S. Vann, principal; loss \$4000.

Weatherford, Texas.—Blue Goose cotton gin; R. L. Hobbs, proprietor.

Wellsburg, W. Va.—C. E. Dare's blacksmith shop; loss \$12,000.

BUILDING NOTES

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

APARTMENT-HOUSES

Nashville, Tenn.—Alex. S. Weinbaum will erect apartment-house; four apartments of six rooms each; exterior of Bowling Green white limestone; stone pins on front porch; C. C. Carter has general contract; Joseph Lightman, foundation; Bardon-Fulcher Company, cut-stone work; Fulcher Brick Co., brick work, and Nashville Plumbing Co., plumbing.

Norfolk, Va.—D. H. Fessenden, Law Building, has prepared plans for apartment-house; 10 stories; elevator; six apartments to each floor, in suites of four, five and six rooms, with bath.

St. Louis, Mo.—Unique Realty Co. will erect two double apartment-houses; two stories; brick and stone; cost \$13,000; plans by E. F. Nolte, 620 Chestnut street.

St. Louis, Mo.—F. A. Banister, Syndicate Trust Building, has had plans prepared by T. C. Lee Architectural Co., Mercantile Building, for erection of store and apartment-house; two stories; brick and stone; cost \$20,000.

St. Louis, Mo.—H. C. Henley, 3813 Page avenue, awarded contract to L. J. Evans for erection of two-story flat building; plans by Mr. Evans; ordinary construction; 11 rooms; hot-air heating; gas lighting; cost \$500.

St. Louis, Mo.—Mullanphy Relief Benefit Association, 305 Locust street, has had plans prepared by Barnett, Haynes & Barnett for erection of apartment-house; three stories; brick and stone; cost \$100,000.

BANK AND OFFICE BUILDINGS

Charlotte, N. C.—T. C. Toomey & Co. have contract at about \$15,000 for plumbing work in 12-story office building to be erected by Charlotte Trust & Realty Co. (Previously mentioned.)

Cuthbert, Ga.—McPherson & Co., bankers, propose erecting brick bank building.

Hancock, Md.—Hancock Bank will erect brick building recently mentioned; steam heat; electric lighting; cost about \$12,000; bids to be opened February 1.

Lexington, Miss.—H. W. Watson, resident agent, Phoenix Insurance Co. of Hartford, Conn., will rebuild office recently burned; fireproof building, with possibly wood framings for doors and windows; wishes correspondence relative to fireproof construction. (See "Machinery Wanted.")

Mandeville, La.—St. Tammany Banking and Savings Bank, Covington, La., has awarded contract to E. Young, Covington, La., at \$6863 for erection of bank, store and office building in Mandeville; two stories; brown pressed brick; terra-cotta trimmings; 35x77 feet. Plans by Drago & Smith, New Orleans, La. (Mentioned in October.)

Maryville, Tenn.—Bank of Blount County has purchased site with frontage of 22 feet at \$1500 on which to erect two-story building.

New Orleans, La.—New Orleans Trunk Co., Herman Davis, president, is reported to erect office building. (See "Woodworking.")

Oklahoma City, Okla.—A. M. Barber is considering plans and specifications for erection of fireproof office building; 10 stories, 40x70 feet; concrete facing; cost \$40,000.

Richmond, Va.—Thomas Ryan of Morton Trust Co., New York city is reported to erect office building in Richmond, expending about \$100,000.

Spartanburg, S. C.—Farmers' Union of Spartanburg county will organize banking company and erect bank building.

Tampa, Fla.—Cosmopolitan Bank & Trust Co., A. R. Swann, president, will erect bank building at a cost of about \$80,000.

Waynesboro, Va.—First National Bank will erect brick bank building. It is understood that plans have been accepted and contract awarded.

CHURCHES

Birmingham, Ala.—Simpson Methodist Episcopal Church, Rev. H. P. Osborne, pastor, is considering plans for erection of edifice to cost about \$50,000.

Clemson College, S. C.—Methodist Church will erect edifice. S. M. Martin, T. W. Keitt, A. B. Bryan and others compose building committee; Rev. J. H. Graves, pastor.

Emporia, Va.—Presbyterian congregation will erect brick edifice at a cost of \$10,000. Address The Pastor, Presbyterian Church.

Hot Springs, Ark.—Christian Congregation, Rev. T. N. Kincaid, pastor, will erect edifice at a cost of \$35,000.

Jackson, Mo.—M. E. Congregation South has had plans prepared by Matthews & Clarke, Missouri Trust Building, St. Louis, Mo., for erection of edifice 70x118 feet; stone; cost \$50,000; Rev. M. T. Haw, pastor.

Kansas City, Mo.—Ivanhoe Park Congregational Church will erect edifice; native stone; brick and cut-stone trimmings; 50x100 feet; auditorium seating capacity 300; cost \$15,000. Root & Siemens, architects; Rev. Horace Holton, pastor.

Knoxville, Tenn.—Bids submitted by contractors have been rejected for erection of Catholic Church of the Holy Ghost; 45x81 feet; buff brick; Tennessee marble trimmings; semi-Gothic style of architecture; marble steps leading to three entry doors; red Spanish tile roof; interior finished in hardwood, with concrete steps; gas and electricity; auditorium 45x75 feet; six class-rooms and music-room on second floor; basement in rear to contain boilers, furnace, etc. Building committee, composed of D. J. O'Neill, general foreman; George W. Callahan, J. J. Ashe, John Donahue and others, has been appointed to erect the edifice at an approximate cost of \$15,000. Construction will begin at once; Rev. James T. Lorrigan is directing the work. (Mentioned in November.)

Latta, S. C.—Baptist congregation will erect edifice at a cost of about \$12,000. Address The Pastor, Baptist church.

Lexington, Ky.—South Side Christian Church will erect edifice. Address The Pastor, South Side Christian Church.

Paducah, Ky.—Trimble Street Methodist Church will erect edifice at a cost of \$25,000. Address The Pastor, Trimble Street Methodist Church.

Shelbyville, Tenn.—Baptist congregation will rebuild edifice recently burned, expending about \$20,000. Address The Pastor, Baptist congregation.

St. Louis, Mo.—Bids will be received at office of Barnett, Haynes & Barnett, architects, Frisco Building, until March 16 for erection of St. Louis Cathedral, in accordance with drawings and specifications, copies of which will be sent to all prospective bidders on receipt of \$20; contract to include only superstructure of building, exclusive of interior finishing. (Recently mentioned.)

Wilmington, N. C.—St. Andrew's Presbyterian congregation has had plans prepared by Field & Lilly for erection of edifice; two stories, 45x65 feet; cost \$6500; Dr. Joseph Akerman, chairman committee.

COURTHOUSES

Asheville, N. C.—David Getaz & Sons, Knoxville, Tenn., are lowest bidders at \$50,600 for extension and improvement to United States postoffice and courthouse at Asheville, for which an appropriation of \$65,000 has been made; James Knox Taylor, supervising architect, Washington, D. C. (Recently mentioned.)

Cambridge, Md.—Dorchester County Commissioners contemplate expending about \$25,000 in improvements to courthouse. P. L. Goldsborough, W. Laird Henry and William N. Andrews have been appointed committee to petition Legislature to authorize bond issue; Charles Lake, Clerk of Circuit Court.

Thomaston, Ga.—Upson County Court has adopted plans by Frank T. Milburn & Co., Home Life Building, Washington, D. C., for erection of courthouse; two stories; brick or stone, or both; probable cost \$50,000. (Recently mentioned.)

Tuscaloosa, Ala.—Bids will be received at Treasury Department, office of James Knox Taylor, Supervising Architect, Washington, D. C., until February 28 for construction (except elevators) of U. S. postoffice and courthouse at Tuscaloosa in accordance with plans and specifications, copies of which may

be obtained at office of custodian of site at Tuscaloosa or at above office, at discretion of Supervising Architect.

DWELLINGS

Baltimore, Md.—Henry C. Shirley, Jr., Park Heights and Kate avenues, has purchased lot about 432x55 feet at Second and Mankin avenues, Hampden, to erect about 30 porch-front houses to cost approximately \$50,000.

Baltimore, Md.—Charles H. Stoner, builder, 1927 West Lombard street, will erect 10 two-story brick dwellings, with modern conveniences, on Mulberry street, between Monroe and Payson streets, to cost \$20,000; Jacob F. Gerwig, architect, 11 East Lexington street.

Huntington, W. Va.—H. R. McLaughlin will erect residence; two stories; brick veneer; cost \$6000; Smith Bros., Harvey Block, architects; George Shore, foundation contractor.

Lynchburg, Va.—First Baptist congregation, Dr. Carter Helm Jones, pastor, has awarded contract to Jones & Adams for erection of parsonage; colonial style of architecture; red brick; 10 rooms; cost \$12,000.

Oklahoma City, Okla.—E. T. Lane will erect residence; two stories; brick; 42x54 feet; cost \$7000.

Pineville, Ky.—E. N. Ingram will erect \$3000 residence; nine rooms; mill construction; hot-water heating; electric lighting; architect not selected. (See "Machinery Wanted.")

Richmond, Va.—Thomas Ryan, care of Morton Trust Co., New York city, is reported as to erect residence in Richmond at a cost of about \$1,000,000.

St. Louis, Mo.—Lawrence Ewald, Security Building, has prepared plans for erection of brick and stone residence 38x39 feet, costing \$10,000.

St. Louis, Mo.—A. B. Corwin, Roe Building, has prepared plans for seven frame residences at Richmond Heights.

Trenton, Mo.—Alison Nicholas awarded contract to L. J. Culp for erection of residence recently mentioned; 38x52 feet; partly mill construction; hot-water heating; electric lighting; six rooms; cement-block porch; cost \$4500; architect, S. P. Love.

Veteran, Fla.—L. P. Snow will erect 10-room residence.

Wake Forest, N. C.—Prof. G. W. Paschal of Wake Forest College is having plans prepared by Will Inman, Shellyville, Ill., for erection of concrete-block residence; nine rooms; ordinary construction; hot-air heat; acetylene lighting; cost about \$4000.

HOTELS

Baltimore, Md.—James P. Shannon Hotel Co., E. P. Herbert, manager, will remodel Eutaw House, corner Eutaw and Baltimore streets, at a cost of about \$75,000; improvements to consist of new interior construction, painting and decorating, installing electric elevators, telephone system, new furniture, etc.

Barbourville, Ky.—John A. Black, president of the National Bank of John A. Black, and associates have had plans prepared for erection of three-story brick and stone hotel; contract has not been awarded.

Clearwater, Fla.—C. W. Baxter, St. Petersburg, Fla., is reported as considering erection of hotel in Clearwater.

Hawkinsville, Ga.—Hawkinsville Board of Trade is promoting erection of 50-room hotel to cost about \$30,000.

Jackson, Miss.—B. J. Smith, manager Hotel Edwards, is having plans and specifications prepared for erection of two additional stories, expending about \$75,000.

Little Rock, Ark.—Hotel Marion Co. contemplates erecting 150-room addition to hotel. Structure will be seven stories high, 45x125 feet, and located in rear of present building, with which it will be connected by a bridge; plans will probably be prepared by George R. Mann.

Little Rock, Ark.—Raleigh & Morris are having plans prepared for erection of hotel; three stories; brick; 50 rooms; cost \$35,000.

Mountain View, Ark.—John F. Chappell contemplates erecting three-story hotel at a cost of \$3000.

MISCELLANEOUS STRUCTURES

Arlene, Texas.—Hospital.—Directors State Epileptic colony have awarded contract to Ennis & Graham, Dallas, Texas, for erection of two brick cottages with accommodations for 40 persons; contract price \$18,355 and \$196,355 for pending work.

Atlanta, Ga.—Library.—Whitfield & King,

160 Fifth avenue, New York, N. Y. (branch offices in English-American Building, Atlanta), have prepared plans for erection of Fifth Ward Branch of Carnegie Library; building to be 40x60 feet; steam heat; electric lighting; cost \$18,000.

Baltimore, Md.—Chesapeake Aerle No. 819, F. O. E., Elite Club, 3d street, near Eastern avenue, Highlandtown, has appointed Albert F. Knop, George J. R. Wolf, Henry Bomhardt and others a committee to select location to erect clubhouse.

Clarksville, Tenn.—Business Buildings, Mrs. C. H. Cooke is reported as contemplating erection of two business buildings.

Elizabeth City, N. C.—County Home.—Elizabeth City Construction Co. has contract to erect fireproof building at county home. (Mentioned in November.)

Forrest County, Miss.—Jail.—Forrest county has engaged William S. Hull, Jackson, Miss., to prepare plans for jail; three-story; cost about \$40,000; T. E. Batson, Hattiesburg, Miss., Clerk of Chancery Court. (Bond issue recently noted.)

Fort Myer, Va.—Buildings.—Bids will be received at office of Quartermaster until February 24 for construction of one set field officers' quarters, three double sets Lieutenants' quarters, barrack, stable, gun shed and stable guard and shop. Certified check or surety company's guarantee for 10 per cent. of amount of bid. Plans and specifications will be furnished on application to above office and are on file with following: Depot Quartermaster, New York and St. Louis, and Chief Quartermaster, Chicago; deposit of \$10 for each set of plans; Government reserves usual rights. Proposals should be addressed to Capt. B. B. Hyer, Constructing Quartermaster.

Gainesville, Ga.—Postoffice Building.—Pharow-Windham Construction Co., Birmingham, Ala., has contract at \$33,948 for erection of United States Postoffice at Gainesville; R. E. Pharow, president. (Mentioned in December.)

Jacksonville, Fla.—Y. M. C. A. Building.—Henry Green, contractor, 124 Lomax street, has begun work on fireproof building for Young Men's Christian Association. Structure will be six stories and basement; 10x96 feet; pressed-brick curtain walls; terra-cotta trimmings; lobby 100x42 feet; gymnasium 48x75 feet; several baths; steam heat; electric lighting; electric elevator; plans by H. J. Klutho, Jacksonville; Southern Ferro-Concrete Co., Atlanta, Ga., has contract for reinforced-concrete work; W. W. Cummer, chairman building committee. (Recently mentioned.)

Jefferson City, Mo.—Capitol Improvements. Louis Zepp, St. Louis, Mo., and Wallace Crossley, Warrensburg, Mo., members of Legislative committee, estimate cost of remodeling hall of House of Representatives at \$40,000. Miller & Opel, architects, of Jefferson City have been instructed to alter plans so as to bring cost of work and furnishings of hall within amount stated. (Recently mentioned.)

Lexington, Va.—Business Building.—William S. Hopkins has awarded contract to W. B. Sneed & Co., Lynchburg, Va., for erection of building to replace burned structure; 110x80 feet; brick; metal roof; two stories; mill construction; electric lighting; cost \$8000 to \$10,000.

Louisville, Ky.—Store Building.—Shapinsky & Rothstein, 471-479 East Market street, will erect three-story brick store building recently mentioned; 27x20 feet; ordinary construction; steam heat; electric lighting; electric elevators; plans by Des Jardins & Shebley, Commercial Building.

Maryville, Tenn.—Business Building.—Prof. E. B. Waller has awarded contract to Post & Post for erection of one-story building to replace burned structure.

Maryville, Tenn.—Livery Barn and Store Buildings.—John McCampbell and Jesse Hutton will erect livery barn and two store buildings.

Mobile, Ala.—Grandstand.—Mobile Baseball Association, Dr. H. T. Inge, president, will expend \$5000 in improvements to grounds and stand.

Nashville, Tenn.—Clubhouse.—Nashville Aerle of Eagles is considering erection of clubhouse to cost about \$25,000; James Palmer, John G. Greener and others, members of committee.

New Orleans, La.—Hospital.—Administrators of Charity Hospital, Edwin Marks, secretary-treasurer, will receive bids until February 20 for erection of five-story fireproof Delgado Memorial Hospital. Plans and specifications may be obtained of architects, Crosby & Henkle, 706 Morris Building; bids to be addressed to Dr. E. S. Lewis, vice-president board of administrators; certified

check, \$200, payable to board of administrators, Charity Hospital; usual rights reserved. (Recently mentioned.)

New Orleans, La.—Business Building—Hoehn & Dieth's building will be rebuilt.

Oklahoma City, Okla.—Garage.—Land, Workman & Co. will erect automobile garage; brick; one story; 50x140 feet; cost \$5000.

Oklahoma City, Okla.—Sons of Confederate Veterans, Brandt Kirk, State Commander, will erect building at a cost of \$20,000. City in which building will be erected has not been decided.

Oklahoma City, Okla.—Library.—Williams & Wells, architects, are preparing plans and specifications for erection of addition and improvements to Carnegie Library, and expect to have them completed and ready for acceptance by Carnegie Library Board about February 4. Bids will then be advertised for. Addition will be of Bedford stone to window casing of second floor, and then of cream-colored brick, with copper corners; roof of slate; cost \$25,000.

Piedmont, W. Va.—Skating Rink.—H. C. Brooks, Fairmont, W. Va., and associates will erect skating rink, 180x60 feet, at Piedmont.

Pine Bluff, Ark.—Store Building.—Gould Galbraith Company will erect store building.

Sharptown, Md.—Lodge Building.—P. F. White, secretary of Board of Trustees, will open bids January 1 for erection of hall for Knights of Pythias; to be completed by June 1; plans and specifications on file with Noah W. Owens; usual rights reserved.

Staunton, Va.—Business Building.—Bowling, Holt & Witz have awarded contract to George W. Fretwell for remodeling building occupied by J. M. Spotts Grocery Co. and erecting another structure at a cost of about \$11,000. Each building will be 37½x100 feet; red brick; three stories and basement; basement to have cement floor.

St. Louis, Mo.—Library.—St. Louis Public Library Board contemplates awarding contracts in the spring for erection of library buildings to cost about \$1,300,000. Plans for central building are now being prepared by Cass Gilbert, and will be completed by May. General plan includes erection of central library and seven branches, two of which have been completed and one is in course of construction; James F. Lee, chairman building committee.

St. Louis, Mo.—Hall.—Elks' Club is having plans prepared by Baker & Knell, Odd Fellows' Building, for erection of hall; brick and stone; gas and electricity; cost \$25,000.

St. Louis, Mo.—Mercantile Building.—Zemekner Company will expend about \$20,000 in improvements to mercantile building, after plans by Eames & Young, Wright Building.

St. Petersburg, Fla.—Business Building.—H. P. Bussey will erect brick business building.

Tulsa, Okla.—Business Building.—E. D. Mitchell has had plans prepared for erection of building; 90-foot frontage; two stories; pressed brick; Carthage stone trimmings; cost \$25,000.

Vicksburg, Miss.—Lodge Building.—Elks Lodge will erect lodge building to replace structure recently burned. New structure will cost \$25,000; competitive plans are invited; W. G. Paxton, chairman of committee.

Whitesburg, Ky.—Jail.—Letcher county has awarded contract to Jarrett & Alfred, Crossville, Tenn., for erection of jail. (Recently mentioned.)

Williamson, W. Va.—Business Building.—Hurst Hardware Co. has had plans prepared by Smith Bros., Harvey block, Huntington, W. Va., for erection of building 50x100 feet; pressed brick; steam heat; electric lighting; water-power elevator; cost about \$12,000. Building may not be erected for some time.

MUNICIPAL BUILDINGS

Houston, Texas—Fire Station.—O. J. Jordan has prepared plans for fire station to be erected in Fifth Ward; James Appleby, fire commissioner.

Norfolk, Va.—Almshouse Improvements.—Board of Control will ask appropriation of \$35,000 for erection of tuberculosis hospital and other improvements to city almshouse. Breese & Mitchell, Atlantic Trust Building, have prepared plans for hospital building calling for erection of two-story brick structure capable of caring for 60 patients; boiler will be installed in building situated between hospital and almshouse proper, which will furnish steam for heating both buildings and for cooking purposes; other improvements include sterilizing room, new plumbing and electric-lighting fixtures. R. Henry Jones, chairman Almshouse Committee of Board. (Recently mentioned.)

Richmond, Va.—Market and Armory.—Competitive plans for erection of combined market and armory building will be received at office of Charles E. Bolling, City Engineer, until March 23. Architects submitting designs will be required to furnish plans, four elevations, longitudinal and cross-sections and other necessary detail drawings; also proposal from reliable company that building can be erected for \$100,000. Committee on Grounds and Buildings reserves usual rights.

RAILWAY STATIONS

Ardmore, Okla.—Reported that the Gulf, Colorado & Santa Fe Railway will erect two-story brick passenger station and additional car sheds and establish passenger and probably freight division point at Ardmore; C. F. W. Felt, chief engineer, Galveston, Texas.

SCHOOLS

Barboursville, Ky.—Barboursville Baptist Institute, controlled by Southern Baptist Convention, will have plans prepared for erection of two dormitories to cost between \$10,000 and \$15,000; Henry L. Pitman, president.

Cheneyville, La.—City will erect brick school building, for which \$16,000 of bonds have been issued; plans have been accepted and bids will soon be advertised for. Address The Mayor.

Conway, Ark.—Arkansas State Normal School will let contract February 14 for steam heating, plumbing and electric lighting of school building recently mentioned and described; contractors for erection of building, Halter Bros.; plans by Charles L. Thompson, Little Rock, Ark.; J. J. Doyne, Little Rock, Ark., Superintendent of Education. (See "Machinery Wanted.")

Douglas, Ga.—School Board has secured location of school to be operated in connection with Southern Normal Institute. B. H. Tanner has agreed to erect dormitory, and John McLean, B. Peterson, J. M. Ashley, Z. W. Kirkland and others to erect two-story brick school building.

Eldorado, Texas.—City has voted \$14,000 of bonds for erection of stone or concrete school building. Address The Mayor.

Eldorado, Texas.—City has voted special tax for erection of school building. Address The Mayor.

Gainesville, Ga.—Plans are being considered for erection of school building in Chestnut Mountain sub-district. Address J. T. Morrow, trustee, Chestnut Mountain Academy.

Girard, Ala.—City contemplates issuance of \$10,000 school building bonds. Address The Mayor.

Glenwood, Texas.—Glenwood School Board will open bids February 15 for erection of two-story-and-basement brick school building; certified check, \$500; plans on file at office of M. L. Waller, Fort Worth, Texas; usual rights reserved; R. T. Corbett, secretary.

Greensboro, N. C.—State Normal and Industrial College will erect science building recently mentioned; plans by Hook & Rogers, Charlotte, N. C. (not Hook & Sawyer, as recently incorrectly noted); central wing, costing \$50,000, is to be erected first; later, \$50,000 will be expended in further construction; date of opening bids not decided; building to have steam heat, electric lighting and electric elevators; J. L. Foust, president.

Gueydan, La.—City will erect school building at a cost of \$30,000. School Improvement Association organized with J. E. Fortier, president.

Hickman, Ky.—Schoolhouse recently noted to be erected after plans by Whited & King, New York city, will be of brick and stone construction; steam heat; electric lighting; cost \$10,000; bids to be opened February 10. Address Hickman Board of Education.

Little Rock, Ark.—Clark & Thalman have contract at \$30,750 for erection of (negro) school building; M. B. Sanders at \$1900 for plumbing, and Treadway Electric Co. for electric wiring. Structure will be of brick, with concrete foundation; four rooms in basement; eight rooms above and auditorium; three stories; 70x90 feet; steam heat; plans by Charles L. Thompson, Southern Trust Building. (Recently mentioned.)

Marshall, Mo.—Feeble-Minded Institute will expend \$25,000 in erection of school building and repair cottage damaged by fire. R. M. Abercrombie, St. Joseph, Mo., Board of Managers.

Natchez, Miss.—City is considering erection of school building to cost about \$10,000. Ben C. Gelsenberger, president of School Trustees.

Petersburg, Va.—Board of Public School Commissioners has adopted plans by Charles M. Robinson, Richmond, Va., for erection of school building.

San Angelo, Texas.—City has voted \$34,000 of bonds for erection of two ward school buildings; C. W. Hobbs, secretary Board of Trustees. (Recently mentioned.)

Sinton, Texas.—City will erect school building. Address The Mayor.

Stanton, Va.—Home Mission, United Presbyterian Church of North America, will erect college building for which bids were recently noted to be opened February 1; plans by W. F. Struthers, 209 Ninth street, Pittsburgh, Pa.; brick and stone; two-story, with basement; 60x90 feet; hot-air heating; lighting not decided; contract for entire building to be let to lowest bidder, if satisfactory. Address Committee on Stanton College Building.

St. Louis, Mo.—Board of Education is having plans prepared by William B. Ittner, 9th and Locust streets, for erection of three-story brick school building for colored children; cost \$150,000.

St. Louis, Mo.—Hiram Lloyd Building & Construction Co. has general contract at \$63,715 for erection of school building recently mentioned. James J. Wharton has contract at about \$400 for carpentry and shower baths in Madison school building; J. C. Kupferle has contract for heating Clinton school building. William B. Ittner, 9th and Locust streets, architect.

Teague, Texas.—School building, for which C. H. Page, Jr., & Bro., Austin, Texas, were recently noted to prepare plans, will be of brick construction; two stories; eight classrooms; auditorium fully equipped with blackboards, etc.; date for opening bids not decided.

Toano, Va.—James City County School Board, Williamsburg, Va., has adopted plans and specifications for erection of school building; two stories; brick; six rooms, including library; appropriation, \$7000.

Tulsa, Okla.—Henry Kendall College will erect two dormitory buildings recently mentioned; plans will be asked for when further progress has been made on main building now under construction; president, A. Grant Evans.

Walnut Springs, Texas.—City has engaged C. H. Page, Jr., & Bro., Austin, Texas, to prepare plans for school building mentioned in August; brick; eight rooms and auditorium.

Washington, D. C.—Plans for two proposed 16-room and one 12-room school buildings have been completed, and bids will soon be invited; structures to cost about \$100,000. Address Building Inspector, District Building.

THEATERS

Lake Charles, La.—Maginnis & Reimers have contract to erect theater in Lake Charles with seating capacity of 1200; Frank B. Flanigan, manager. (H. C. Stearn, Port Arthur, Texas, was recently reported to erect opera-house in Lake Charles.)

Memphis, Tenn.—Jefferson Theater Co. incorporated with \$50,000 capital stock by A. B. Morrison, Henry A. Bilger, John W. Schorr, W. A. Bickford and others. Company will remodel Germania Hall as theater, erecting two additional stories. (Germania Building Co. was recently mentioned as having plans prepared by John Galsford for remodeling Germania Hall as theater.)

Moundsville, W. Va.—Major Hunter has engaged Franzheim & Klieves, Wheeling, W. Va., to prepare plans for theater and bank building; contract to be awarded February 10.

Oklahoma City, Okla.—Oklahoma City Lodge of Elks considering proposition of Mr. Martin, Dallas, Texas, for erection of theater and lodge building at a cost of \$30,000.

Palmetto, Fla.—W. G. Lynch of Tampa, Fla., is erecting theater at Palmetto Beach, 95x127 feet; frame; stage 20x30 feet; cost \$8000. Mr. Lynch also plans to erect bathhouses, chute the chutes, etc., and build sea wall along the shore.

Rockingham, N. C.—Contract for erection of opera-house awarded to Lee County Building & Construction Co., Sanford, N. C.; pressed-brick and stone structure; cost \$20,000; plans by Sompayrac & Urquhart, Columbia, S. C. (Mentioned in November.)

Wheeling, W. Va.—John Papilas will have plans prepared by Mooney & Mott for theater; first-story room in Bijou Dream Theater will be remodeled and a one-story brick building erected adjoining; front to be lighted with electricity; site 34x80 feet.

WAREHOUSES

Baltimore, Md.—Frederick Neeseeman, 618 Hanover street, has awarded contract to Thomas H. King, 524 North Stricker street, to erect three-story warehouse, 51x58 feet, at 19 and 21 West York street, to cost about \$5000.

Chattanooga, Tenn.—Chattanooga Transfer Co. will erect fireproof addition to warehouse; steel; walls of brick; floors of concrete; cost \$20,000.

Elkton, Ky.—Elkton Warehouse Co. is name of company recently mentioned to be organized to erect warehouse; S. H. Perkins, president; J. C. Penick, vice-president; B. S. Street, secretary, and G. M. Turnley, treasurer.

Jacksonville, Fla.—Sea Island Cotton Warehouse & Exporting Co., Harry Jordan, Atlanta, Ga., president, recently reported incorporated, will build fireproof warehouse. Main office in Jacksonville.

Lexington, Ky.—C. K. Oldham awarded contract to Combs Lumber Co. for addition to warehouse recently mentioned; 140x10 feet; two stories; frame; ordinary construction; cost of completed building \$12,500; plans by Combs Lumber Co.

Martinsburg, W. Va.—W. H. Helston will erect warehouse for mill machinery; three stories; brick; 28x50 feet; slate roof.

Martinsburg, W. Va.—W. H. Helston Mill Construction Co. will erect warehouse; three stories; 40x38 feet; slate roof.

RAILROAD CONSTRUCTION

RAILWAYS

Alexandria, La.—The Rock Island Railway, it is announced, has completed its extension from Alexandria to Eunice, La., and will put it in operation February 1.

Athens, La.—The Athens Progressive League, just organized, has appointed a committee to work on the proposition to secure the construction of an electric railway from McNeil, Ark., via Athens to Natchitoches, La. An electric railway from Shreveport via Minden, La., to Athens is also contemplated. E. A. Watson is president, A. G. Pace vice-president, Carl Campana secretary-treasurer and S. J. Crump assistant secretary.

Big Stone Gap, Va.—The Clinch & Sandy Railroad Co. of Big Stone Gap has been chartered to build a line 50 miles long from St. Paul, Va., to the breaks of the Big Sandy river. It will run through Wise, Russell, Dickenson and Buchanan counties. The incorporators are R. T. Irvine, president, Big Stone Gap; T. P. Trigg, vice-president, Abingdon, Va.; J. S. Wright, secretary; J. W. Kelly, treasurer; H. E. Fox, C. M. Franklin, D. E. Allen and James G. Nesbitt, all of Big Stone Gap, Va.

Chattanooga, Tenn.—The Tennessee & Georgia Interurban Railroad Co. and the Tennessee Construction Co., in which S. W. Devine and others are interested, have been granted an extension of franchise in Chattanooga to build the proposed road.

Clarksburg, W. Va.—Thomas Fitzgerald of Baltimore, who recently resigned as general manager of the Baltimore & Ohio Railroad, is reported to be interested in a plan to build an electric railway from Clarksburg to Pittsburgh, Pa.

Fort Smith, Ark.—The St. Louis & San Francisco Railroad, it is reported, will build an extension from Fort Smith to a proposed new town in Oklahoma, three miles south. J. F. Hinckley is chief engineer at St. Louis.

Fort Worth, Texas.—Reported that Sudder- man & Dolson, railroad contractors of Houston and Galveston, Texas, will take the contract to build the Turner Interurban Railway from Fort Worth to Mineral Wells via Weatherford, Texas.

Frederick, Md.—The Washington, Frederick & Gettysburg Railway Co., which is building a line from Frederick to Lewistown, Md., about nine miles, has ordered a survey from Lewistown to Rocky Ridge, Md., for a further extension. D. Columbus Kemp of Frederick is president.

Galveston, Texas.—The Galveston Terminal Railway Co. has called a meeting for March 20 to vote upon an issue of bonds not to exceed \$5,000,000 in connection with its improvement work. W. E. Green is president and E. R. Cheesborough is secretary.

Geneva, Ala.—Reported that Richard Tillis of Montgomery and associates are making arrangements to build this year their proposed electric railway from Geneva to Dothan, Ala.

Hereford, Texas.—President W. G. Ross of the Panhandle Short Line Railway writes the Manufacturers' Record that the proposed line is from Dalhart, Texas, southeast to Aransas Pass, Texas, via Hereford, Midland,

Uvalde and Artesia. Contracts will be let about February 15 or 20 for grading 150 miles, surveys having been made and line located for over 200 miles, rights of way also being obtained; total length of line to be about 750 miles. The other officers are as heretofore reported.

Hinton, W. Va.—Reported that the Virginian Railway Co. will build a branch from the mouth of East river to the Piney coal fields via West Hinton and Prince. H. Fernstrom is chief engineer at Norfolk, Va.

Houston, Texas.—J. N. Miller, vice-president and general manager of the St. Louis, Brownsville & Mexico Railway, is quoted as saying that the line will build an extension to Houston, but he cannot say how soon. E. C. Burgess is chief engineer at Corpus Christi, Texas.

Intermont, Va.—The Virginia & Southwestern Railway is grading at Intermont for yards on its Black Mountain division. E. S. Fraser is chief engineer at Bristol, Tenn.

Lyman, Miss.—The Ingram-Day Lumber Co. will, it is reported, build an extension of several miles to its standard-gauge railroad, which is now 15 miles long, from Lyman into timber lands. Capt. I. C. Alexander of Hatfield, Miss., is the contractor.

Miami, Fla.—The Florida East Coast Railway has, it is reported, completed its line to Knight's Key, the viaduct at Long Key being finished. The line is to be operated immediately.

Monticello, Ky.—The Cumberland River & Nashville Railroad Co. has, it is reported, awarded a contract to the Monticello Construction Co. to build its line from Burnside, Ky., to Monticello, 20 miles, on which 12 miles have been graded. John H. Shearer and others are interested.

Muskogee, Okla.—The St. Louis & Oklahoma Southern Railway Co. of Muskogee has been granted a charter; capital \$10,000,000. The proposed line is 275 miles long, from Gravith, Ark., to a point near Oberlin, Okla. The incorporators are Henry G. Baker and Walter R. Eaton of Muskogee and James B. Christensen, Clayton L. Stover and John H. Elton, all of St. Louis.

Muskogee, Okla.—The Missouri River & Gulf Railroad Co. has filed a map showing its proposed line in Oklahoma from a point near Welch via Choctaw and McAlester to the Red river. It is expected to run from Kansas City to the Gulf of Mexico. A. L. Berger of Kansas City is president and E. Holbrook is chief engineer.

Orange, Texas.—B. W. Johnson of Uni, Texas, on the Orange & Northwestern Railway, is reported as saying that his train road from that point is to be extended.

Paducah, Ky.—An officer of the Chicago & Eastern Illinois Railroad Co. writes the Manufacturers' Record denying the press report that it proposed to build a line southward through Paducah.

Paducah, Ky.—The Paducah Northern Railroad Co. has, it is reported, been incorporated by local capitalists to build a line from Paducah to a point 13 miles down the Ohio river, where the Burlington and the Big Four will, it is said, build a bridge across the river. The incorporators are George C. Wallace, H. C. Overby, L. M. Rieke, James C. Utterback, Joseph L. Friedman, Earl Palmer, Richard Ruddy, L. P. Hummel, Muscoo Burnett, O. L. Gregory, W. F. Bradshaw, Jr., John W. Keeler, Max B. Nahm and Samuel B. Hughes.

Paris, Ark.—The Arkansas, Red River & Paris Railway Co. has been granted an extension of time to build its line, which will be about 35 miles long, of which 9 miles will be in Arkansas and 26 in Oklahoma. H. L. Fitzhugh of Fort Smith, Ark., and others are interested.

Robert Lee, Texas.—Mr. S. J. Bross, engineer in charge, informs the Manufacturers' Record that the proposed route of the Robert Lee & Fort Chadbourne Railway is from Robert Lee to Rawlings, 13½ miles; also from Rawlings to Winters, 2½ miles. From Robert Lee toward Rawlings 2½ miles are graded, and grading will now proceed from Rawlings toward Robert Lee. J. E. Hunter is in charge of construction, with S. J. Bross as chief engineer. No work is yet done from Rawlings (the crossing of the "Orient" road) toward Winters.

Searcy, Ark.—The Missouri & North Arkansas Railroad is reported to have completed eight miles of track out of Searcy, and track is also being laid from Leslie to Heber. The line from Heber to Searcy may be completed by June.

Seligman, Ark.—The Missouri & North Arkansas Railroad has, it is reported, completed grade on its extension from Seligman, Ark., to Neosho, Mo., and will, by connection with the Kansas City Southern Rail-

road, begin to operate trains February 15 between Leslie, Ark., and Joplin, Mo.

Spencer, N. C.—The Southern Railway, it is reported, has let a contract to J. C. Morris of Greensboro, N. C., for the enlargement of the roundhouse yards at Spencer.

St. Mary's Ga.—Capt. L. Johnson is reported to have completed track on his line (from St. Mary's and Kingsland Railway) from St. Mary to Kingsland, Ga., about 10 miles.

Tampa, Fla.—The Tampa & Sulphur Springs Traction Co. proposes to extend its line to West Tampa.

Velasco, Texas.—D. T. Bomar, president of the Houston & Brazos Valley Railroad (formerly the Velasco, Brazos & Northern), is quoted as denying the report that B. F. Yonk controls it and saying that four-fifths of the stock is owned by Felix Jackson of Velasco, Texas, who is vice-president and general manager of the line, and Edward S. Hughes of Abilene, Texas. The rest of the stock is owned by Mr. Bomar, who is of Fort Worth, Texas, and Morgan Jones of New Orleans. Mr. Hughes is secretary and treasurer. An extension from Anchor to Houston, Texas, 100 miles, is contemplated.

Weatherford, Texas.—President G. M. Bowle of the Chicago, Weatherford & Brazos Valley Railroad Co. has, it is reported, received a proposition from Mr. Whitesell of Memphis, Tenn., a civil engineer, to build the proposed line from Weatherford to Bridgeport, 40 miles.

West Point, Ga.—The Chattahoochee Valley Railway is reported to be laying about 1000 feet of track per day on its northward extension.

STREET RAILWAYS

Brunswick, Ga.—Reported that the City & Suburban Railway Co. will soon begin construction on its four-mile electric railway under the franchise granted to F. D. M. Strachan, Frank D. Aiken, E. F. Coney, C. Downing and A. Fendig of Brunswick; Geo. P. Walker, Geo. F. Armstrong and Harry D. Strachan of Savannah, Ga., and Ernest L. Simpson, 59 West 88th street, and Lewis H. Spence, 320 West 75th street, New York city.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air Compressor.—O. R. Whitney, 39-41 Cortlandt street, New York, wants steam-driven air compressor that will deliver 400 feet free air per minute against 100-pound pressure.

Air Gauges.—American Machinery Co., 49 South Forsyth street, Atlanta, Ga., wants jobbing prices on 50 to 500 air gauges to show pressure up to 100 pounds; connection for ¼-inch pipe.

Baling Presses.—Johannes Mertens, Stadthausbruecke 25, Hamburg, Germany, wants agencies for American baling presses.

Bottling Machinery.—Maryland Equipment & Supply Co., Baltimore, Md., wants bottle sterilizer with capacity of sterilizing 50 half-gallon bottles every 20 minutes; also wants attachment for sterilizing two or three five-gallon bottles at same time, and arrangement for filling bottles all at one time or in rows. Wants complete information in regard to installing and operating sterilizer.

Bowling Alleys.—J. R. Hazlewood, Box 2, R. F. D. No. 1, Marshall, Texas, wants addresses of manufacturers of bowling alleys and alley supplies.

Brick Machinery.—J. G. Granberry, 448 Smith avenue, Thomasville, Ga., wants brick machinery.

Bridge Construction.—See "Roadway and Bridge Repairs."

Bridge Construction.—Bids will be received until February 3 for erection of steel bridge, resting on concrete piers, across Trinity river, near Fort Worth, Texas; to be a 24-foot roadway, with carrying capacity of 3000 pounds per linear foot; flooring of span

and approaches to be either of 2x4 oak set on edge or of concrete; plans and specifications must accompany each bid; C. J. McKenna, Fort Worth, Texas, County Auditor.

Building Materials.—E. N. Ingram, Pineville, Ky., wants prices on building materials.

Building Materials.—Kenworthy Engineering Co., Waterbury, Conn., in market for brick, lime, sand, cement, etc., delivered at New Orleans.

Canning Machinery.—See "Peach Peeler and Pitter."

Cement.—Colvin & Henry, City Engineers, Newbern, N. C., want prices on Portland cement.

Cement-block Machinery.—Bruce Gerdes, Silverton, Texas, in market for cement-block machine. Give full description, price, terms, etc.

Cement.—Bids will be received at office of H. F. Hodges, general purchasing officer, Isthmian Canal Commission, Washington, D. C., until March 12 for furnishing 4,500,000 barrels Portland cement. Blanks and general information relating to Circular No. 420 obtainable from above office or offices of assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, Cal., and 110 Chamber of Commerce Building, Tacoma, Wash.; also from U. S. Engineer office in following cities: Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville and Mobile.

Cement-plant Machinery.—Crescent Portland Cement Co., 121 Farmers' Bank Building, Wampum, Pa., is taking bids for buildings and equipment for plant to have daily capacity of from 2500 to 3000 barrels of cement; Curtin-Ruggles Company, 39 Cortlandt street, New York, engineers in charge.

Chimney.—Bids will be received at Bureau of Yards and Docks, Navy Department, Washington, D. C., until February 1 for a radial brick chimney for naval hospital, Portsmouth, Va. Plans and specifications on file at Bureau, or will be furnished by commandant of Navy-yard, Norfolk, Va.; R. C. Hollyday, Chief of Bureau.

Concrete Blocks.—E. N. Ingram, Pineville, Ky., wants prices on concrete blocks for machinery.

Concrete Tester.—Colvin & Henry, City Engineers, Newbern, N. C., want prices on concrete tester delivered at Newbern.

Cotton Machinery.—Box 416, Atlanta, Ga., wants latest-improvised system for converting cotton pickings into uniform stock.

Crushed Stone.—Colvin & Henry, City Engineers, Newbern, N. C., want prices on crushed stone.

Diamond Drills.—J. Orr Campbell, San Antonio, Texas, wants descriptions and prices of diamond drills.

Drainage.—Board of Commissioners, Second Drainage district of Pointe Coupee parish, Batchelor, La., will open bids February 20 for following work for improving drainage and for clearing or removing obstructions to drainage in certain bayous in Pointe Coupee parish, in accordance with plans and specifications by Board of State Engineers: Work for improving drainage, Mussel Bayou to Bayou Latanache; deposit \$800; bond \$14,000. Work for clearing or removing obstructions to drainage: Fisher's Bayou, deposit \$150, bond \$500; Simmes' Canal, deposit \$50, bond \$150; Cow Head Bayou, deposit \$250, bond \$750, and Black Bayou, deposit \$200 and bond \$700. Usual rights reserved. For further information, blank forms, etc., address Board of State Engineers at New Orleans, La., or to N. P. Phillips of Batchelor, president of board, or George Mercier, McCrea, La.

Dredge Construction.—Bids will be received until February 14 at U. S. Engineer Office, 815 Witherspoon Building, Philadelphia, Pa., for constructing twin-screw suction dredge for Galveston harbor, Texas; information on application; J. C. Sanford, Major, Engineers.

Dredging.—Bids will be received at United States Engineer Office, 1539 Louisiana avenue, New Orleans, La., until February 21 for dredging about 250,000 cubic yards at Port Arthur, Texas. Information on application; J. F. McIndoe, Major, Engineers.

Dredging.—Bids will be received at United States Engineer Office, 1539 Louisiana avenue, New Orleans, La., until February 21 for dredging about 250,000 cubic yards at Port Arthur, Texas. Information on application; J. F. McIndoe, Major, Engineers.

Dump Cars.—O. R. Whitney, 39-41 Cortlandt street, New York, wants six three-cubic-yard Western 36-inch-gauge dump cars.

Dyeing Apparatus.—See "Woolen-Mill Machinery."

Electric Lighting.—See "Heating Plant."

Electric Motor.—Brown Milling Co., Atalla, Ala., wants prices on 150-horse-power motor; two-phase, 60-cycle, 2300-volt.

Electric Wiring.—Bids will be received at office of treasurer Southern Branch, N. H. D. V. S., National Soldiers' Home, Va., until February 21 for all material and labor for remodeling electric wiring in pavilion and theater, in accordance with instructions and specifications, copies of which, with blank proposal forms and other information, can be obtained on application to John T. Hume, treasurer.

Electrical Equipment.—Bids will be received at Augusta Arsenal, Augusta, Ga., until February 25 for furnishing and delivering electrical switchboard, motor-generator sets, motors, air compressors, metalworking and woodworking machines, some with motor drive; pneumatic hammer, electric and hand overhead cranes, fuel-oil furnaces, testing machine, etc. Information and blanks furnished on application to commanding officer, Augusta Arsenal.

Electrical Equipment.—Wagner & Schnitzer, 148-156 West West street, Baltimore, Md., in market for general equipment for new ironworking plant.

Electrical Equipment.—Bids will be received until February 15 at office of Elliott Woods, Superintendent U. S. Capitol Building and Grounds, Washington, D. C., for quantities of electric conduit, etc., required in connection with electrical equipment of Senate Office Building, Washington; erection of scheduled material not included; copies of specifications can be obtained at above office; certified check or surety bond in sum of 2 per cent. of amount of bid; usual rights reserved.

Electrotyping Machinery.—Weekly Cumberland City Review, Cumberland City, Tenn., in market for new or second-hand electrotyping outfit.

Engine.—Tennessee Mill Co., Estill Springs, Tenn., wants new or second-hand engine; 250 to 300-horse-power; left-hand rope-drive preferred.

Engine.—See "Gasoline Engine."

Fireproof Construction.—H. W. Watson, Lexington, Miss., wants information in regard to fireproof construction of office buildings.

Gas-pressure Regulators.—American Machinery Co., 49 South Forsyth street, Atlanta, Ga., wants 50 to 500 gas-pressure regulators, to keep even pressure on lights, regardless of pressure before passing regulators.

Gasoline Engine.—Whitehead Hosiery Mills, Burlington, N. C., wants 9 to 12-horse-power gasoline engine; new or second-hand.

Grading.—Board of Awards, City Hall, Baltimore, Md., will receive proposals until February 5 for clearing and grubbing site for reservoir near Forest Park; plans and specifications at office of Water Engineer, City Hall; proposals to be accompanied by certified check for \$400; usual rights reserved.

Hoisting Apparatus.—S. A. Westenhaver, Martinsburg, W. Va., wants hoisting apparatus.

Heating Plant.—J. J. Doyne, Little Rock, Ark., wants bids on heating, plumbing and lighting for school building; contract to be let February 14.

Hoisting Engine.—Houston County Coal & Manufacturing Co., Crockett, Texas, wants proposals on hoisting engine; wants engine that can be used in connection with Atlas boiler (60 inches in diameter and 18 feet long) and 115-foot tipple; to handle seven to eight one-and-one-quarter-ton pit cars on slope at speed of 400 to 500 feet per minute. Company believes purpose can be served by reversible hoisting engine of 75 horse-power with 12½x15-inch cylinders, drum 59 inches in diameter and 47 inches long, with one-inch rope and with flange of drum sufficient to hold four or five coils of rope; wants to handle coal on single-line track with single drum and rope, weight of cars to carry rope back to face of slope or gathering point.

Ironworking Machinery.—See "Machine Tools."

Iron Works.—See "Jail Cells."

Jail Cells.—J. E. Hildt, County Clerk, Wagoner, Okla., wants prices on four jail cells with center corridor.

Laundry Equipment.—Indianola Light, Ice & Coal Co., Indianola, Miss., wants prices on complete laundry outfit, steam or electric.

Lumber and Piles.—Bids will be received at office of H. F. Hodges, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until February 13 for furnishing lumber and piles. Blanks and general information relating to Circular No. 419 obtained from above office or offices of assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, Cal., and 410 Chamber of Commerce Building, Tacoma, Wash.

Wash.; also from U. S. Engineer Office in following cities: Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville and Mobile.

Machine Tools.—Wagner & Schnitzer, 148-150 West West street, Baltimore, Md., in market for drill presses, punches, shears, saws, lathes, etc., for ironworking plant.

Machinists.—J. Quarles Dickinson, Box 476, Fitzgerald, Ga., wants to correspond with machinists relative to placing order for manufacture of power stump-pullers. Material required, gasoline engine, marine type, high-speed, 8 to 12 horse-power; shafting; castings; spur, worm and friction gears; traction wheels; plow; steel cable and blocks; assembled on wood frame by plans and specifications, which will be furnished on application.

Malleable-Iron Works.—J. T. McNeill, Lynchburg, S. C., wants to have single irons made of malleable or wrought iron.

Motors.—See "Sewer Construction."

Mechanical Equipments.—Charles Michel & Co., 82 Rue de la Folie-Mericourt, Paris, France, are prepared to correspond regarding American fuel for manufacturing furnaces, ovens of all kinds, blowpipes of all kinds, fuel for combustible soldering apparatus, outfit for removing dust, vapors, etc., from factories and other places, vacuum and gas and air compressing outfit sand blasts, painting machines, sprayers, pumps of all kinds, tools and machinists' supplies, ventilating, heating and cooling equipments, etc.

Metal Work.—Proposals will be received at office of the Lighthouse Engineer, Baltimore, Md., until February 15 for furnishing materials and labor necessary for completion and delivery of metal work for LaTrappe river beacon lights, Md., in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to engineer.

Miscellaneous Supplies.—Bids will be received at office of H. F. Hodges, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until February 17 for hose, packing, rubber valves, steel rope, electrical material, iron conduit, etc. General information relating to Circular No. 418 obtained from above office or office of Assistant Purchasing Agent, 21 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, Cal., and 40 Chamber of Commerce Building, Tacoma, Wash.; also from U. S. Engineer Office in following cities: Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville and Mobile.

Paint.—Rock Hill Buggy Co., Rock Hill, S. C., wants to correspond with manufacturers of and dealers in special paint for galvanized tanks, for use on inside and outside of tank.

Peach Peeler and Pitter.—Joseph E. Boston, president Gilmore Canning Co., Atlanta, Ga., wants to correspond with manufacturers of and dealers in new-process peach peeler and pitter.

Plaster.—E. N. Ingram, Pineville, Ky., wants prices on plaster.

Plumbing.—See "Heating Plant."

Potato-chip Machinery.—J. F. Vickery, Box 59, Atlanta, Ga., wants catalogues and prices on machinery for making potato (Saratoga) chips.

Potato-chip Machinery.—Chas. C. McKelvy, 701-702 Tennessee Trust Building, Memphis, Tenn., wants addresses of manufacturers of potato (Saratoga) chip machinery.

Pump.—Bids will be received at office of J. B. Winslett, City Secretary, Dallas, Texas, until March 3 for 10,000,000-gallon high-service vertical triple-expansion condensing crank and flywheel pump, to be erected by the manufacturer. Bids on any type of engine may be submitted, but above-described engine is preferred. Specifications on file in office of City Secretary, copies of which will be furnished on application. Usual rights reserved. Certified check, \$500.

Pump.—O. R. Whitney, 39-41 Cortlandt street, New York, wants large outside-packed plunger steam pump; steam cylinders to be 20 to 24-inch diameter; 9 or 10-inch plunger; any good make; second-hand in good condition.

Pumps.—See "Sewer Construction."

Pumps.—American Machinery Co., 49 South Forsyth street, Atlanta, Ga., wants 50 to 500 small, low-priced hand air-pumps.

Rails.—B. J. Skinner, Hogan, Fla., wants three miles steel rails.

Railway Equipment.—Cedars Manufacturing Co., Cedars, Miss., will want rails and equipment for one mile logging railway.

Roadway and Bridge Repairs.—Bids will be received at Chief Quartermaster's office, Candier Building, Atlanta, Ga., until February 20 for improving roadway leading to the Barrancas (Fla.) National Cemetery, and for rebuilding bridge over Bayou Grande. Full particulars can be obtained on application to J. W. Pope, Colonel and Chief Quartermaster, or to Quartermaster at Fort Barrancas, Fla.

Saw and Stave Mill.—F. W. McCain, Rumer, postoffice Midway, W. Va., wants prices on saw and stave mill machinery.

Seating.—Rev. J. A. Gohn, York, Pa., wants church seating for main auditorium.

Sewer Construction.—H. L. Pettus, Quartermaster, office Constructing Quartermaster, Walter Reed Army General Hospital, Takoma Substation, Washington, D. C., will receive proposals until February 24 to construct sewer system on Walter Reed Army General Hospital reservation, including sewage tank, pump pit, pumps and motors; plans and specifications upon application; usual rights reserved.

Sewer Construction.—Board of Awards, J. Barry Mahool, president, City Hall, Baltimore, Md., will receive proposals until February 19 for constructing west low-level interceptor, Section No. 3, as shown on plans of office of chief engineer of Sewerage Commission; approximate amount of material needed will be 1,867 linear feet of 66-inch-diameter sewer, 1,355 linear feet of 60-inch-diameter sewer, 80 linear feet of 30-inch-diameter sewer and two bell-mouths; specifications and plans may be obtained at office Sewerage Commission, Room 904 American Building; certified check for \$5000 required with each bid, and the successful bidder required to give satisfactory bond; usual rights reserved.

Sewer Construction.—H. E. Moody, City Clerk, Carterville, Mo., will receive bids until February 6 for construction of 12,000 feet public sewers.

Sewer Construction.—Bids will be received until February 24 at office of Constructing Quartermaster, Walter Reed Army General Hospital, Takoma Substation, Washington, D. C., for construction of sewer system on Walter Reed Army General Hospital Reservation, Washington, including sewage tank, pump pit, pumps and motors. Plans, etc., obtained on application; United States reserves usual rights. Address Capt. H. L. Pettus, Quartermaster.

Sewer Work.—See "Street Improvements."

Shingles.—S. B. Ward, Belle Haven, Va., in market for several carloads 5-inch cypress and red cedar shingles.

Sprinkler Equipment.—R. P. Walters, Brandon, Miss., wants addresses of manufacturers of automatic sprinkler heads.

Steam Shovel.—Tennessee Mill Co., Estill Springs, Tenn., wants small or medium-size second-hand steam shovel; traction preferred; good condition and low price.

Steam Shovel.—O. R. Whitney, 39-41 Cortlandt street, New York, wants standard-gauge steam shovel, three quarter yard or one yard.

Steam Shovel.—Stovall Brick Co., Stovall, N. C., in market for second-hand steam shovel with $\frac{1}{2}$ -yard dip, for brick yard.

Sterilizers.—See "Bottling Machinery."

Street Improvements.—Bids will be received at City Clerk's office, Atlanta, Ga., until February 17 by Mayor and General Council of Atlanta for following work for 1908; furnishing and setting granite curb; furnishing and setting concrete curb; furnishing and laying brick sidewalks; furnishing and laying sheet-cement sidewalks; furnishing manhole and catchbasin covers for sewers; furnishing cement for sewer work; furnishing vitrified pipe, and constructing such sewers as may be authorized. Specifications will be furnished on application to R. M. Clayton, City Engineer; certified check; payable to clerk of City Council, for \$500; usual rights reserved.

Structural Work (Plant Buildings).—See "Cement-Plant Machinery."

Tanks.—American Machinery Co., 49 South Forsyth street, Atlanta, Ga., wants galvanized tanks as follows: 50 each to stand 100 pounds air pressure, sizes 20 inches by 3 feet, 15 inches by 2 feet, and 12 inches by 18 inches; 50 each to hold 10, 8 and 6 gallons oil, with pressure of 50 to 100 pounds; all larger tanks to have one inlet and one outlet ready to attach $\frac{1}{2}$ -inch pipe, and one outlet on top for $\frac{1}{4}$ -inch pipe; all smaller tanks to have three connections $\frac{1}{2}$ -inch, ready to connect piping.

Tobacco-pipe Machinery.—Wm. John Felton, 2025 Fifth avenue, Birmingham, Ala.,

wants to correspond with manufacturers of tobacco-pipe machines, with view to ordering machine for making patent improved pipe.

Tools.—Paul Ruckert, Zabel Strasse 11, Gera, Reuss, Germany, wants to deal in fine mechanical tools—micrometer gauges, etc.

Water-distribution System.—Bids will be received until February 14 at office of contracting quartermaster, Fort Morgan, Ala., for extension of water-distribution system; information on application. Address Capt. Louis F. Garrard, Jr., Fort Morgan.

Water-wheels.—See "Woolen-mill Machinery."

Wheelbarrows.—Savannah Woodenware Co., Savannah, Ga., wants addresses of manufacturers of sheet-iron tubular wheelbarrows, such as used by coal dealers.

Woodworking Machinery.—See "Tobacco pipe Machinery."

Woodworking Machinery.—King Lumber Co., Charlottesville, Va., wants second-hand planer and matcher.

Woodworking Machinery.—J. T. McNeill, Lynchburg, S. C., wants band scroll saw, boring machine and handle lathe to take 40 inches, for small plant of medium capacity.

Woodworking Machinery.—Johannes Mertens, Stadthausbrucke 25, Hamburg, Germany, wants agencies for American planers, polishers, grinders (sandpaper), saws and saw frames, emery wheels, box-trimming machines, rip and crosscut saws, nailing machines, etc.

Woolen-mill Machinery.—Achilles Bacon & Co., Salonica, Turkey, wants prices, specifications and full information on woolen-mill equipment—pickers, cards, looms, dyeing machinery, 200-horse-power turbine, etc.

Wrought Iron.—See "Malleable Iron Works."

INDUSTRIAL NEWS OF INTEREST

Charles Mundt & Sons' New Location.

Announcement is made that Messrs. Charles Mundt & Sons, the well-known manufacturers of perforated metals, are now located at 53-57 Fairmount avenue, Jersey City, N. J., having moved there from Pearl street, New York.

A Million Paving Blocks.

The Thurber Brick Co. of Thurber, Texas, has received a big contract for paving blocks to be furnished to the city of Houston, Texas. The contract calls for 1,000,000 vitrified paving blocks, which the city officials will use in improving various streets.

Wm. W. Power with Johns-Manville.

Mr. Wm. W. Power has been appointed manager of the electrical department of the Boston branch of the H. W. Johns-Manville Company, 100 William street, New York. He was formerly district manager of the Allis-Chalmers Company's Philadelphia office, and previous to that was connected with the Christensen Engineering Co. as special representative throughout New England.

Crescent Portland Cement Co.

The Crescent Portland Cement Co., 123 Farmers' Bank Building, Wampum, Pa., is now taking bids for the erection of the buildings and the furnishing of the equipment of machinery for its Portland cement plant. This plant is to have a daily capacity of from 2500 to 3000 barrels. Its construction will be in charge of the Curtin-Ruggles Company, 39 Cortlandt street, New York.

Fairbanks Steam Shovel in South.

Contractors and other users of steam shovels in the South will be pleased to know that the Fairbanks Steam Shovel Co. of Marion, Ohio, has established a branch office at 409 Carondelet street, New Orleans, La., with Southern Representative J. W. Woodward in charge. This will enable the buyers of steam shovels to investigate the Fairbanks type readily and insure promptness in deliveries.

Showcase Maker Wants Agents.

The Cochrane Showcase Co. of Charlotte, N. C., is desirous of arranging for the establishment of agencies for the sale of its products throughout the country. This company has a complete modern plant for the manufacture of showcases, bank fixtures, jewelry-store fixtures, clothing cabinets and other kindred articles which are in steady demand. The company also wants a successful salesman to offer its products to his trade.

Vises for United Verde Company.

One of the largest and most complete machine shops ever undertaken by a mining company has recently been completed at Jerome-Ariz., by the United Verde Mining Co. In harmony with the building, nothing but the latest types of labor-saving machines and tools have been installed. The entire vice equipment consists of the high-speed Pittsburgh double-swivel vises, manufactured by the Pittsburgh Automatic Vice & Tool Co. of Pittsburgh, Pa.

Carey's Roofing Chosen.

Carey's roofing was chosen for the Baltimore & Ohio Railroad umbrella sheds and the Wheeling Warehouse & Storage Co.'s building at Wheeling, W. Va. This roofing is made by the Phillip Carey Manufacturing Co. of Lockland, Ohio. The Carey products include Carey's magnesia flexible cement roofing, asbestos sectional steam pipe and boiler covering, asbestos and asphalt materials, and 5% per cent. magnesia steam-pipe and boiler coverings.

Lane Bros.' Important Contract.

An important contract recently secured by the Lane Bros. Company of Esmont, Va.,

was obtained from the Tidewater Construction Co., which is building the Virginia Railway. The contract calls for 500,000 yards of ballast, to be delivered at Tinkling and Hurt, Va. The Lane Bros. Company has for some time been supplying the Southern Railway with ballast, and in connection with its new contract will install additional crushers at Hurt and employ about 450 men there.

Eureka Fire Hose Manufacturing Co.

The stockholders of the Eureka Fire Hose Co. of 13 Barclay street, New York, held a meeting on January 26, at which the corporate name of the company was changed to the Eureka Fire Hose Manufacturing Co. Dealers and users of fire hose are asked to note this change in the company's title. The manufacture of the company's well-known fire hose and other articles will be continued as heretofore.

Gandy Belting Co. Announcement.

The Gandy Belting Co. of Baltimore, Md., announces that the United States Court for the Northern District of Illinois has issued a decree in its favor in an action against the Weller Manufacturing Co. of Chicago, perpetually restraining the latter company from supplying stitched cotton belting painted or dyed red in imitation of the red-stitched belting manufactured by the Gandy Belting Co., and from using the Gandy trademark.

Robbins & Myers Company.

The Robbins & Myers Company, whose main office and factory are at Springfield, Ohio, recently moved its Chicago office from 1321 Fisher Building to 48 West Jackson boulevard. This new location provides greater facilities for a large stock and prompt delivery of the company's Standard direct and alternating-current fans and Standard power motors. Considerable outside territory has been added to the Chicago branch, including Wisconsin, Minnesota, Iowa and Northern Illinois. The Chicago branch is managed by H. A. Porter.

The W. E. Carter Electric Co.

Demands for electrical machinery, supplies and contracting continue to afford opportunities for progressive men in the South. Atlanta, Ga., and its territory is an active field in this direction, and the W. E. Carter Electric Co. of that city is prominent in meeting the conditions. This company has recently removed to its new and larger establishment at No. 12 Walton street, where there is on view a large and varied stock of electrical supplies, fixtures, machinery, etc. Besides dealing in these products, the company undertakes contracts and has established a reputation for efficient and prompt service.

Jamestown Exposition Property Offered.

The personal property of the Jamestown Exposition Co. will be offered for sale at public auction, beginning February 4. The property will include lumber and building materials, tent floors and camp fixtures, mattresses, filing cabinets, typewriters, police motor launch, road implements, etc. After January 30 there will be for sale privately a large quantity of insulated copper wire and cable, electrical fixtures, fire extinguishers and plumbing fixtures. For particulars address Jamestown Exposition Co., Alvah H. Martin and Wm. M. Geddes, receivers, Exposition Station, Norfolk, Va.

Improvement of Flint Side Saw.

Edward G. Ward has received a patent for an improvement of the flat-side saw. The principal objects of his invention are to reduce frictional contact of saw blade against the side walls of saw kerf, stiffen saw blade without adding to thickness of blade, pro-

vide means for guiding saw blade in kerf and provide means for permitting free circulation of air in kerf, and thus aid in keeping blade cool and rendering action of saw more smooth and less liable to stick in kerf. The claims allowed for the improvement are broad and cover all classes of saws manufactured. Mr. Ward can be addressed care of the Railway World, Witherspoon Building, Philadelphia, Pa., for further particulars.

The G. M. Yost Vises.

The vise is a tool required in almost every manufacturing plant, as well as in other industrial establishments, and by building contractors and railway constructors. It has been improved to a marked degree during recent years, and the well-known vises now largely used include the product of the G. M. Yost Manufacturing Co. of Mechanicsburg, Ky. This company is building a larger plant at Meadville, Pa., to which city it expects to remove before May 1, and will there have extensive facilities for the production of its vises—Stephens improved machinists', Sneedker quick-acting machinists', Sneedker quick-acting blacksmiths', Stephens automatic jewelers' and Yost solid-jaw parallel. Prior to about a year ago the Yost Company was located at Waynesboro as a selling agency only, but then it purchased the National Vise & Tool Co.'s plant at Woodsdale, N. J., and that of P. A. Frasse & Co. of New York city and removed them to Mechanicsburg. Continually increasing demands for the Yost vises made it necessary to build a larger plant, and the selection of Meadville followed.

Electric Drive in Hardware Plant.

An example of the induction motor drive in a modern factory is found in the plant of the O. M. Edwards Company, Syracuse, N. Y., manufacturer of hardware specialties, such as window and extension platform trap-door fixtures, steel window sash, molding, etc. Formerly the company purchased power from the Syracuse Lighting Co., using 500-volt direct-current motors for driving wood and metal-working machinery. It was so well satisfied with electric motor drive that when the factory was enlarged an isolated alternating-current plant was installed, with a complete induction motor equipment. The generating equipment consists of a Sweet straight-line engine direct connected to a 220-volt 70-kilowatt 60-cycle three-phase generator. The generator is of the revolving field type built by the General Electric Co. of Schenectady, N. Y. A tap is brought out from the neutral point of the generator winding for incandescent lighting purposes. The motors are of the standard General Electric squirrel-cage type; total capacity installed over 100 horse-power. The method of drive is what is commonly known as the group drive, motors suspended on platforms from ceiling. In each machine-room the machines are assembled in four groups, a motor in each corner driving separate line shafting, from which machines are belt driven. Starting compensators are placed conveniently near to motors. The entire electrical equipment has been operating 11 hours per day for over a year without any trouble whatever.

TRADE LITERATURE.

Beck Flaming Arc Lamps.

The Western Electric Co. is about to issue a bulletin fully descriptive of the Beck flaming arc lamp and full data covering performance. These lamps as now manufactured are suitable for use in either alternating or direct currents, and have been so greatly simplified in construction that but little skill is required in operating. They will supplement the already well-known line of enclosed arc lamps manufactured by the Western Electric Co., West Forty-eighth avenue and 24th street, Hawthorne, Ill.

Foot's Slate Talk.

An interesting periodical is Foot's Slate Talk, which is a bi-monthly devoted to the advancement of the slate industry and the advocacy of slate as the best roofing material. The first number contains information about slate that will be useful to the architect and builder and to dealers in slate for roofing and other purposes. It is the intention of the publisher to present data that will be timely and informative. James L. Foot of Slatington, Pa. (in a renowned slate-mining district), is the publisher.

"Vulcan" Elevating and Conveying Machinery.

Users of elevating and conveying machinery or general colliery equipment will be interested in a booklet which is being distributed by the Vulcan Iron Works of Wilkes-

Barre, Pa. The publication contains a number of photographic reproductions which give a general idea of the colliery equipment and coal elevating and conveying machinery which this company manufactures. Among its products may be mentioned hoisting and haulage engines, safety cages, return tubular boilers, ventilating fans, mining machinery, breaker rolls, revolving screens, shaking screens, plunger jigs, cement machinery, locomotives, shafting, pulleys, etc.

Thermit Welded Motor Cases.

A leaflet is now being distributed to present in concise yet complete form information regarding the Goldschmidt Thermit Co.'s thermit welded motor cases. It presents illustrations and descriptive text of timely interest to those concerned with such processes. The thermit welds are effected by pouring superheated thermit steel around the parts to be welded. This steel, being twice as hot as ordinary molten steel, dissolves the metal with which it comes in contact and amalgamates with it to form a single homogeneous mass when cooled. The Goldschmidt Thermit Co.'s offices are at 90 West street, New York, and 432-436 Folsom street, San Francisco.

Reinforced Brazing.

"The loss from broken castings in one year is more than enough to pay the national debt. Ninety-nine out of 100 broken castings are considered worthless—go into the scrap pile. But 99 out of that 100 can be restored and made serviceable—they are not scrap." Such a statement is likely to attract the attention of many managers of plants. It is made in the pamphlet entitled "Reinforced Brazing," which explains in detail a method which effectually reclaims broken castings; a method of reinforcement and brazing which is claimed to not only completely restore the part, but add many times to its original strength, thus making it more serviceable than an entirely new one. The method is fully explained and many illustrations of difficult restorations are presented. The Reinforced Brazing & Machine Co., Pittsburgh, Pa., controls the method and is prepared to send copies of the pamphlet to interested parties.

Simple Automatic Steam Engines.

Diverse are the industrial activities into which the steam engine enters. This form of machinery is the highly important one of furnishing the power for driving the mechanical equipment needed in mill and factory, electric plant, power-house, mining development, etc. An aid to buyers of engines is presented in the Phoenix catalogue of simple self-oiling steam engines. These engines are built for heavy duty, designed for either right or left hand, being constructed right hand unless otherwise required. They are either belt or direct connected, with or without subbase. A distinctive feature is the lubricating system, which provides for a copious supply of oil to flood all the bearings without waste or damage from dust or water. A complete description of these successful engines can be read in the catalogue mentioned. The Phoenix Iron Works Co. of Meadville, Pa., builds these engines.

Standard Steel Railway Springs.

An interesting illustrated pamphlet is now current to describe a few of the more important types of springs now in use on steam and electric railways, besides detailing the conditions under which the springs are manufactured. Owing to the infinite variety of sizes and designs and the many variations of different classes, all could not be shown, but those referred to give a general idea of the Standard types. Standard springs are made of the finest obtainable materials by workmanship of the highest grade, being the result of more than 35 years' experience in the manufacture of steel springs. The Standard Steel Works, general offices in Harrison Building, Philadelphia, Pa., issues the pamphlet, and the springs are the company's product. Recently the company has built a new and modern shop especially for manufacturing springs, and is equipped to furnish prompt deliveries on contracts.

Modern Lifting Magnets.

Important improvements in handling iron ore and other raw and finished products have been introduced during the past decade. One of the most important is the lifting magnet as designed by modern inventors and manufactured by leading electrical companies. Beginning with the handling of plates and billets, the lifting magnet has been successfully applied to pig-iron steel and iron scrap, castings, rails, machinery and other articles. The manufacture of these lifting magnets has for years been a specialty of

the Electric Controller & Supply Co. of Cleveland, Ohio. This company is now distributing an interesting illustrated pamphlet descriptive of its lifting magnets, the subject being thoroughly discussed. No manufacturer or dealer or contractor handling materials to which the magnet can be applied (and they are numerous) should fail to examine the publication mentioned. They will ascertain facts which will be of assistance to them in determining how to promote efficiency and economy in their establishments.

The Massachusetts Fan Co.

In preparing its new catalogue the Massachusetts Fan Co. has chosen a shape which is readily handled; moreover, it can be easily carried in one's pocket or filed on the desk with other engineering handbooks. The book is replete with information regarding the company's make of fans and with timely and valuable references to its facilities for designing, manufacturing and installing heating, ventilating and drying fans, blowers and engines. Lengthy descriptions have been avoided and the book has been confined to illustrations, dimension tables, capacity tables, engineering tables and explanatory notes. In all, this publication comprises data that should be available for consultation by engineers and contractors interested in the classes of mechanical installation mentioned. The index includes Davidson fans, steel-plate fans, heaters, apparatus for special work, engines and engineering tables—weight of galvanized iron, area and circumference of circles, equalization table, steam and gas pipe tables, etc. The Massachusetts Fan Co. has its plant and main offices at Watertown, Mass.

The Lima Locomotives.

Recent years' industrial and manufacturing activity has resulted in great increases in the purchase of railway rolling-stock for mine, factory, mill, railway and construction work. The demand for locomotives has been ably met by American manufacturers, and the Shay geared and rod types have been promptly supplied by the Lima Locomotive & Machine Co. of Lima, Ohio. This company is now issuing its new catalogue, which describes and illustrates standard locomotives available for prompt shipment. For more than 30 years the company has made the building of locomotives its especial field of endeavor, and its success is known wherever improved locomotives are required for any class of service, in many foreign lands as well as in America. Besides describing the Lima-built locomotives, the catalogue presents some interesting general information and data which is of value for consideration by present and prospective users of these machines. The illustrations are all from photographs, and include interesting views of the Lima shops, the products of the shops, and locomotives built for arduous services in various parts of the country. The Lima catalogue is six by nine inches in size, and is adaptable for M. C. B. file.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., January 29.

The Baltimore stock market was quiet during the past week. In the trading United Railways common sold at 11½; do. trust certificates, 11½; the income bonds from 48% to 50; the funding 5s from 74% to 76; do. scrip, 71½ to 75; United 4s, 86 to 86½; Consolidated Gas 6s, 102 to 102½; do. 5s, 107; do. 4½s, 87½; Seaboard 4s, 52; Cotton Duck 5s, 72½ to 73; Seaboard Company common, 51½.

Bank stock sold as follows: Citizens', 32; Maryland, 15 to 16; Merchants', 163; Union, 115; Howard, 12; Exchange, 160. Fidelity & Deposit was dealt in at 113 to 114; Maryland Casualty, 57½ to 58; United States Fidelity & Guaranty, 100.

Other securities were traded in thus: Northern Central Railway stock, 84 to 85; Houston Oil, 7½ to 7; Atlantic Coast Line new 4s, certificates, 65½ to 66; Georgia Pacific 1st 6s, 106½; Western North Carolina 6s, 102; Baltimore City

5s, 1916, 105½; Atlantic Coast Line 4s, 88½; Baltimore City 3½s, 1945, 93; Potomac Valley 5s, 105; West Virginia Central 6s, 102½ to 102½; Atlantic Coast Line stock, 71½ to 69½; Western Maryland Railroad stock, 5½ to 6; Central Railway (Baltimore) 5s, 107; Baltimore City 4s, 1920, 100; do. do. 1925 (Western Maryland), 100; do. 3½s, 1930, 96½; do. do. 1936, 95½; Baltimore, Sparrows Point & Chesapeake 4½s, 92; Carolina Central 4s, ex-coupon, 75½; Charleston & Western Carolina 5s, 101; Baltimore City 3½s, 1928, 96½; Georgia, Carolina & Northern 5s, ex-coupon, 90; Atlanta Consolidated Street Railway 5s, 100½.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended January 29, 1908.

| Railroad Stocks. | Par. | Bid. | Asked. |
|------------------------------|------|------|--------|
| Atlanta & Charlotte | 100 | 125 | 130 |
| Atlantic Coast Line | 100 | 69½ | 70 |
| Georgia Sou. & Fla. 1st Pfd. | 100 | 77 | 90 |
| Georgia Sou. & Fla. 2d Pfd. | 100 | 50 | 55 |
| Maryland & Pennsylvania | 100 | 25 | 35 |
| Norfolk Railway & Light | 25 | 25 | 29 |
| Seaboard Company Common | 100 | 51 | 56 |
| Seaboard Company 2d Pfd. | 100 | 11 | 15 |
| United Rys. & Elec. Co. | 100 | 59 | 113½ |
| Western Maryland | 100 | 5½ | 5½ |

Bank Stocks.

| Bank Stocks. | Par. | Bid. | Asked. |
|----------------------------|------|------|--------|
| Citizens' National Bank | 10 | 30½ | 32 |
| Com. & Far. White Ctrs. | 100 | 77 | 100 |
| Com. & Far. Blue Ctrs. | 100 | 11 | 12½ |
| Commonwealth Bank | 50 | 79 | 80 |
| Farmers & Mer. Nat. Bank | 40 | 40 | 40½ |
| Maryland National Bank | 20 | 16 | 19 |
| Merchants' National Bank | 100 | 155 | 160 |
| National Bank of Baltimore | 100 | 110 | 117 |
| National Exchange Bank | 100 | 160½ | 172 |
| National Howard Bank | 10 | 12 | 12½ |
| National Union Bank of Md. | 100 | 115 | 116 |
| Old Town Bank | 10 | 12½ | 13 |
| Third National Bank | 100 | 105 | 124 |

Railroad Stocks.

| Railroad Stocks. | Par. | Bid. | Asked. |
|----------------------------|------|------|--------|
| Fidelity & Deposit | 50 | 112½ | 115 |
| International Trust | 100 | 130 | 130 |
| Maryland Casualty | 25 | 58 | 58 |
| Maryland Trust | 100 | 20 | 59 |
| Mercantile Trust & Deposit | 50 | 109 | 115 |
| Union Trust | 50 | 56 | 56 |
| U. S. Fidelity & Guaranty | 100 | 105 | 105 |
| Title Guarantee & Trust | 100 | 130 | 130 |

Miscellaneous Stocks.

| Miscellaneous Stocks. | Par. | Bid. | Asked. |
|-------------------------------|------|------|--------|
| Ala. Con. Coal & Iron Pfd. | 100 | 60 | 60 |
| Con. Gas, Elec. Lt. & P. Com. | 20 | 20 | 20 |
| Consolidation Coal | 100 | 82½ | 91 |
| G. B.-S. Brewing Co. | 100 | 2 | 4 |
| Mer. & Miners' Trans. Ctrs. | 100 | 70 | 80 |

Railroad Bonds.

| | | |
|-------------------------------------|------|------|
| Albany & Northern 5s, 1946 | 92½ | ... |
| Atlantic Coast Line 1st 4s, 1952 | 88½ | 89½ |
| Ath. Coast Line 4s, 1915, 1952 | 65 | 65½ |
| At. Coast Line 4s, Col. Tr. L. & N. | 77 | 79 |
| Carolina Central 4s, 1948, ex-cou. | 75 | 77 |
| Charleston & West. Car. 5s, 1946 | 100½ | 102½ |
| Florida Southern 4s, 1940 | 81 | 83 |
| Georgia & Ala. 5s, 1945, ex-cou. | 88 | 94 |
| Georgia Pacific 1st 6s, 1922 | 105 | 107½ |
| Georgia Sou. & Fla. 1st 5s, 1945 | 100 | 100 |
| Maryland & Pennsylvania 4s, 1951 | 78 | 78½ |
| Piedmont & Cum. 1st 5s, 1941 | 97 | 97 |
| Potomac Valley 1st 5s, 1941 | 101 | 107 |
| Raleigh & Gaston 5s | 93 | 99 |
| Richmond & Dan. Gold 6s, 1935 | 104 | 108 |
| Seaboard Air Line 4s | 51 | 52 |
| Seaboard Air Line 5s, 10-year, 1911 | 80 | 84½ |
| Seaboard & Roanoke 5s, 1925 | 92 | 92 |
| Southern Ry. Con. 5s, 1934 | 88 | 88 |
| Virginia Midland 3d 6s, 1916 | 105 | 105 |
| Washington Terminal 3½s | 90 | 91½ |
| Western Maryland 4s, 1952 | 60 | 64 |
| Western North Car. Con. 6s, 1934 | 102 | 102 |
| West Va. Cen. 1st 6s, 1911 | 102 | 102 |
| Wilmington, Col. & Aug. 6s, 1910 | 101½ | 102½ |
| Wilmington & Wel. Gold 5s, 1935 | 106 | 106 |

Street Railway Bonds.

| | | |
|-----------------------------------|------|------|
| Anaconda & Potomac 5s, 1949 | ... | 29 |
| Atlanta Con. Street Railway 5s | ... | 101½ |
| Augusta Ry. & Elec. 5s, 1949 | ... | 35 |
| Baltimore City Passenger 5s, 1911 | 101 | 101½ |
| Baltimore Traction 1st 5s, 1929 | 107 | 107 |
| Charleston City Railway 5s, 1927 | 101 | 103 |
| City & Suburban 5s (Baltimore) | 102½ | 102½ |
| City & Suburban 5s (Wash.) | 104 | 104½ |
| Metropolitan 5s (Wash.) | 102½ | 102½ |
| Newport News & Old Pt. 5s, 1938 | ... | 39 |
| Norfolk Railway & Light 5s | ... | 89 |
| Norfolk & Portsmouth 5s | ... | 90 |
| Norfolk Street Railway 5s, 1944 | 100 | 100 |
| North Baltimore 5s, 1942 | 107½ | 107½ |
| Richmond Traction 5s | 100½ | 100½ |
| United Railways 1st 4s, 1949 | 86½ | 87 |
| United Railways Income 4s, 1949 | 49 | 49½ |
| United Railways Funding 5s | 75½ | 75½ |

Miscellaneous Bonds.

| | | |
|--------------------------|-----|-----|
| Atlanta Gas 1st 5s, 1947 | 94 | ... |
| Baltimore Electric 5s | 76 | 78 |
| Baltimore Brick 5s | ... | 10 |
| Consol. Coal Refining 4 | | |

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| | | | | |
|--------------------------------------|---------|-------------------------------|-----|-----|
| Anderson Cotton Mills (S. C.) | 70 | Warren Mfg. Co. (S. C.) | 90 | 97 |
| Arkwright Mills (S. C.) | 110 | Warren Mfg. Co. (S. C.) Pfd. | 106 | 107 |
| Augusta Factory (Ga.) | 65 | Washington Mills (Va.) | 25 | |
| Avondale Mills (Ala.) | 100 | Washington Mills (Va.) Pfd. | 100 | 106 |
| Belton Mills (S. C.) | 116 | Watts Mills (S. C.) | 112 | |
| Bibb Mfg. Co. (Ga.) | 113 1/2 | Whitney Mfg. Co. (S. C.) | 140 | |
| Brandon Cotton Mills (S. C.) | 120 | Williamston Mills (S. C.) | 106 | 108 |
| Cabarrus Cotton Mills (N. C.) | 123 | Wlacasset Mills (N. C.) | 127 | |
| Chadwick Mfg. Co. (N. C.) Pfd. | 101 | Woodruff Cotton Mills (S. C.) | 125 | 130 |
| Chiquita Mfg. Co. (S. C.) | 118 | Woodside Cotton Mills (S. C.) | 110 | |
| Clifton Mfg. Co. (S. C.) | 120 | | | |
| Clifton Mfg. Co. (S. C.) Pfd. | 100 | | | |
| Clinton Cotton Mills (S. C.) | 120 | | | |
| Columbus Mfg. Co. (Ga.) | 96 | | | |
| Courtenay Mfg. Co. (S. C.) | 97 1/2 | | | |
| Dallas Mfg. Co. (Ala.) | 95 | | | |
| Darlington Mfg. Co. (S. C.) | 78 | | | |
| Eagle & Phenix Mills (Ga.) | 125 | | | |
| Easley Cotton Mills (S. C.) | 146 | | | |
| Enoree Mfg. Co. (S. C.) | 70 | | | |
| Enterprise Mfg. Co. (Ga.) | 100 | | | |
| Exposition Cotton Mills (Ga.) | 85 | | | |
| Gaffney Mfg. Co. (S. C.) | 83 | | | |
| Gainesville Cotton Mills (Ga.) | 55 | | | |
| Granby Cot. Mills (S. C.) 1st Pfd. | 45 | | | |
| Granville Cotton Mills (S. C.) | 160 | | | |
| Greenwood Cotton Mills (S. C.) | 90 | | | |
| Grendel Mills (S. C.) | 96 | | | |
| Heinle Mills (N. C.) | 118 | | | |
| King Mfg. Co. John P. (Ga.) | 175 | | | |
| Lancaster Cot. Mills (S. C.) Pfd. | 91 | | | |
| Langley Mfg. Co. (S. C.) | 91 | | | |
| Laurens Cotton Mills (S. C.) | 150 | | | |
| Limestone Mills (S. C.) | 140 | | | |
| Lockhart Mills (S. C.) | 91 | | | |
| Lockhart Mills (S. C.) Pfd. | 97 | | | |
| Louise Mills (N. C.) | 91 | | | |
| Marlboro Cotton Mills (S. C.) | 80 | | | |
| Mayo Mills (S. C.) | 165 | | | |
| Mills Mfg. Co. (S. C.) | 110 | | | |
| Mills Mfg. Co. (S. C.) Pfd. | 105 | | | |
| Monaghan Mills (S. C.) | 116 | | | |
| Monarch Cotton Mills (S. C.) | 105 | | | |
| Newberry Cotton Mills (S. C.) | 140 | | | |
| Norris Cotton Mills (S. C.) | 120 | | | |
| Olympia Cot. Mills (S. C.) Pfd. | 68 | | | |
| Orangeburg Cot. Mills (S. C.) Pfd. | 80 | | | |
| Orr Cotton Mills (S. C.) | 100 | | | |
| Pacolet Mfg. Co. (S. C.) | 165 | | | |
| Pacolet Mfg. Co. (S. C.) Pfd. | 100 | | | |
| Pelzer Mfg. Co. (S. C.) | 165 | | | |
| Piedmont Mfg. Co. (S. C.) | 165 | | | |
| Poe Mfg. Co. (S. C.) | 128 | | | |
| Raleigh Cotton Mills (N. C.) | 102 | | | |
| Richland Cot. Mills (S. C.) Pfd. | 55 | | | |
| Roanoke Mills (N. C.) | 160 | | | |
| Saxon Mills (S. C.) | 128 | | | |
| Sibley Mfg. Co. (Ga.) | 60 | | | |
| Spartan Mills (S. C.) | 145 | | | |
| Springfield Mills (S. C.) | 100 | | | |
| Trion Mfg. Co. (Ga.) | 127 1/2 | | | |
| Tucupan Mills (S. C.) | 195 | | | |
| Union-Buffalo Mills (S. C.) 1st Pfd. | 70 | | | |
| Victor Mfg. Co. (S. C.) | 130 | | | |
| Warren Mfg. Co. (S. C.) Pfd. | 105 | | | |
| Washington Mills (Va.) | 20 | | | |
| Washington Mills (Va.) Pfd. | 100 | | | |
| Whitney Mfg. Co. (S. C.) | 125 | | | |
| Wiscasset Mills (N. C.) | 115 | | | |
| Woodruff Cotton Mills (S. C.) | 130 | | | |
| Woodside Cotton Mills (S. C.) | 109 | | | |

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending January 27.

Bid. Asked.

| | | |
|------------------------------------|-----|-----|
| Abbeville Cotton Mills (S. C.) | 90 | 90 |
| Aetna Cotton Mills (S. C.) Pfd. | 80 | 80 |
| Alken Mfg. Co. (S. C.) | 82 | 89 |
| American Spinning Co. (S. C.) | 145 | 145 |
| Anderson Cotton Mills (S. C.) | 95 | 75 |
| Arcadia Mills (S. C.) | 109 | 100 |
| Arkwright Cotton Mills (S. C.) | 112 | 100 |
| Augusta Factory (Ga.) | 65 | 70 |
| Avondale Mills (Ala.) | 110 | 110 |
| Belton Mills (S. C.) | 112 | 115 |
| Brandon Mills (S. C.) | 125 | 130 |
| Brogan Mills (S. C.) | 40 | 45 |
| Cabarrus Cotton Mills (N. C.) | 125 | 103 |
| Chadwick Mfg. Co. (N. C.) Pfd. | 100 | 100 |
| Chiquita Mfg. Co. (S. C.) | 115 | 125 |
| Clifton Mfg. Co. (S. C.) | 105 | 110 |
| Clifton Mfg. Co. (S. C.) Pfd. | 101 | 101 |
| Clinton Cotton Mills (S. C.) | 155 | 98 |
| Columbus Mfg. Co. (Ga.) | 94 | 98 |
| Courtenay Mfg. Co. (S. C.) | 100 | 100 |
| Dallas Mfg. Co. (S. C.) | 95 | 100 |
| Darlington Mfg. Co. (S. C.) | 80 | 85 |
| D. E. Converse Co. (S. C.) | 112 | 112 |
| Drayton Mills (S. C.) | 100 | 100 |
| Eagle & Phenix Mills (Ga.) | 130 | 135 |
| Easley Cotton Mills (S. C.) | 145 | 150 |
| Enoree Mfg. Co. (S. C.) | 70 | 82 |
| Enoree Mfg. Co. (S. C.) Pfd. | 100 | 102 |
| Enterprise Mfg. Co. (Ga.) | 82 | 90 |
| Exposition Cotton Mills (Ga.) | 225 | 225 |
| Gaffney Mfg. Co. (S. C.) | 80 | 85 |
| Gainesville Cotton Mills (Ga.) | 57 | 60 |
| Glenwood Mills (S. C.) Cotton | 122 | 122 |
| Gluck Mills (S. C.) | 90 | 96 |
| Granby Cot. Mills (S. C.) 1st Pfd. | 50 | 50 |
| Granville Mfg. Co. (S. C.) | 160 | 165 |
| Greenwood Cotton Mills (S. C.) | 94 | 98 |
| Grendel Mills (S. C.) | 118 | 118 |
| Hartville Cotton Mills (S. C.) | 118 | 125 |
| Henrietta Mills (N. C.) | 165 | 165 |
| Inman Mills (S. C.) | 100 | 102 |
| King Mfg. Co. J. P. (Ga.) | 97 | 102 |
| Lancaster Cotton Mills (S. C.) | 109 | 109 |
| Lancaster Cot. Mills (S. C.) Pfd. | 92 | 99 |
| Langley Mfg. Co. (S. C.) | 92 | 96 |
| Laurens Mills (S. C.) | 150 | 162 |
| Limestone Mills (S. C.) | 140 | 150 |
| Lockhart Mills (S. C.) | 87 | 92 |
| Loray Cotton Mills (N. C.) Pfd. | 90 | 101 |
| Marlboro Cotton Mills (S. C.) | 80 | 90 |
| Mills Mfg. Co. (S. C.) | 110 | 110 |
| Mollon Mfg. Co. (S. C.) | 100 | 110 |
| Monaghan Mills (S. C.) | 117 | 120 |
| Monarch Cotton Mills (S. C.) | 106 | 109 |
| Newberry Cotton Mills (S. C.) | 127 | 127 |
| Ninety-Six Cotton Mills (S. C.) | 115 | 120 |
| Norris Cotton Mills (S. C.) | 117 | 122 |
| Odell Mfg. Co. (N. C.) | 90 | 90 |
| Olympia Cotton Mills (S. C.) | 70 | 80 |
| Orr Cotton Mills (S. C.) | 103 | 108 |
| Pacolet Mfg. Co. (S. C.) | 106 | 105 |
| Pacolet Mfg. Co. (S. C.) Pfd. | 101 | 104 |
| Pelzer Mfg. Co. (S. C.) | 167 | 175 |
| Piedmont Mfg. Co. (S. C.) | 170 | 170 |
| Poe Mfg. Co. F. W. (S. C.) | 125 | 125 |
| Saxon Mills (S. C.) | 120 | 125 |
| Sibley Mfg. Co. (Ga.) | 58 | 63 |
| Spartan Mills (S. C.) | 140 | 148 |
| Trion Mfg. Co. (Ga.) | 132 | 140 |
| Tucupan Mills (S. C.) | 190 | 190 |
| Union-Buffalo (S. C.) 1st Pfd. | 70 | 70 |
| Union-Buffalo (S. C.) 2d Pfd. | 20 | 27 |
| Victor Mfg. Co. (S. C.) | 130 | 130 |

Audit Company of New York.

A recent step in the progress of the Audit Company of New York was the opening of a branch office in Atlanta, Ga., and this development directs attention to the steady growth of this corporation, which was organized in 1897 in New York city. The company was formed at a time when the demand for certification of accounts of firms and corporations of various kinds was beginning to expand with wonderful rapidity, and its career has been one of steadily-extending value and influence. In addition to the Southern office named, it now has branches in Chicago, Pittsburgh, Philadelphia and Boston, besides special representatives in other cities, and a branch on the Pacific coast is contemplated. The service performed by the company is of a comprehensive character, and does not consist merely of the examination and report of accounts, but it is also called upon to take care of insurance work and to devise plans for office and factory cost systems, and to install the same. Experts are employed for this sort of duty, as well as in the accounting. The directors of the company include such men as August Belmont, William A. Nash, James Stillman, George Harvey and Joseph S. Auerbach, besides others of prominence. Edward T. Perine is president; Frank C. Richardson, secretary and treasurer, and the home office is at 43 Cedar street, New York.

New Corporations.

Abilene, Texas.—A State bank is reported being organized with \$100,000 capital. Albany, Ga.—The Georgia Banking Co. will begin business February 1 with the following officers: Judge F. F. Putney is president; J. M. McIntosh, vice-president; J. E. Toole, cashier, and C. C. Baggs, assistant cashier. Baltimore, Md.—The Columbus Building and Loan Association has been incorporated with \$50,000 capital by Louis Herman, Frank Horwitz, Samuel Horwitz, Isaac Frankel, Louis Cohen, Jacob Carmel, Bernard Nachamowitz, Aaron Cohen, Moses Hartz, Hyman Blumberg, Hyman Posnansky and Harris L. Hartz. Bokoshe, Okla.—The State Exchange Bank has been incorporated with \$10,000 capital by O. B. Kee and C. A. Huber of Oklahoma City and A. J. Fister, E. W. Clark and W. W. Beesley of Bokoshe. Brandon, Miss.—The Farmers' Building and Loan Association has been incorporated with \$100,000 capital by J. R. Chant, Okla.—Farmers and Merchants' Bank, capital \$10,000, has been incorporated by Joe M. Edwards, S. T. Phillips, J. A. Phillips, Charles X. Edwards and Charles W. Self. Chickasha, Okla.—The Oklahoma State Bank has been incorporated with \$50,000 capital by W. H. Gilkey, R. K. Wootten, H. J. Jarbo, Jr., W. C. Cannon, G. W. Barefoot, J. W. Speake, J. R. Abercrombie, A. S. Gilkey and C. Schlosenbeck. Clearspring, Md.—The Clearspring Savings Bank is reported being organized by Benjamin F. Beard, Edward McLaughlin, George T. Prather of Clearspring and Abram Shank and E. W. McCormick of Washington.

Cruger, Miss.—The People's Deposit and Savings Bank, capital \$10,000, has been incorporated by C. T. Stepp, R. W. Turnipseed and others. Hattiesburg, Miss.—A building and loan

association is to be established, A. J. Harris being the principal promoter.

High Point, N. C.—The People's Banking & Trust Co. has been organized with \$50,000 capital. F. F. Wrenn of Marion and Northern capitalists are said to be interested.

Hobart, Okla.—The Home State Bank has been granted a commission: capital \$10,000. The officers are W. M. Rowland, president; J. W. Walton, vice-president; W. C. Kelsay, cashier.

Hoffman, Okla.—First Bank of Hoffman, capital \$10,000, has been incorporated by J. E. Davis, N. B. Davis and L. Davis.

Kings Mountain, N. C.—The People's

Loan & Trust Co., capital \$10,000, has been

been incorporated by J. B. Thomasson, C.

J. Rhodes, J. G. Hord, M. E. Herndon

and others.

Lexington, Okla.—The Security State

Bank has elected the following officers:

E. M. Abernathy, president; J. A. Bilan,

vice-president, and Charles Greenmore,

cashier.

Maysville, Okla.—The First National

Bank has been approved; capital \$25,000.

The organizers are G. W. Burford, G. E.

Burford, H. C. Burford, W. C. Burford

and W. M. Champion.

Oklahoma City, Okla.—The City State

Bank has been incorporated with \$25,000

capital by H. C. Pickett, H. F. Carter and

John Lloyd.

Oxford, N. C.—The National Bank of

Granville, which is a conversion of the

Bank of Granville, has been authorized

to begin business with \$60,000 capital.

The officers are E. T. White, president;

J. M. Currin, vice-president; H. G. Cooper,

cashier, and C. S. Eastern and W. T.

Yancey, assistant cashiers.

Pontotoc, Miss.—The People's National

Bank expects to begin business about Fe

bruary 1 with \$25,000 capital. The offi

cers are J. A. Salmon, president; J. M. Goff,

first vice-president; W. L. Pyle, second

vice-president; J. E. Atkinson, cashier.

Pontotoc, Miss.—Reports state that the

Merchants and Farmers' Bank is to be re

organized as the First National Bank of

Pontotoc and the capital increased from

\$30,000 to \$50,000. The officers will be

J. H. Salmon, president; L. A. Latham,

vice-president; W. A. Boone, cashier, and

D. W. Knox, assistant cashier.

Portland, Ark.—The People's Bank of

Portland has been granted a charter; capi

tal, \$25,000. The incorporators are H.

V. Johnson, D. L., J. C. and R. J. Boin,

T. P. McCompers, W. E. Dean, P. C.

Berry, A. E. Core, J. M. E. Holcomb and

others; directors, J. C. Bain, president;

E. F. Cammuk, H. V. Johnson, Thomas P.

Chant, Okla.—Farmers and Merchants'

Bank, capital \$10,000, has been incorpo

rated by Joe M. Edwards, S. T. Phillips,

J. A. Phillips, Charles X. Edwards and

Charles W. Self.

Portland, Ark.—

M. Compose, W. C. Dean, S. L. Bain and J. A. Dean.

Rocks, Md.—The Farmers' Savings Bank of the Rocks has filed articles of incorporation. The directors are Edward E. Pyle of Delta, John C. Ayres, H. G. Ramsay and John R. Ramsay of the Rocks, and E. W. McCormick of Washington, D. C.

Sapulpa, Okla.—The Creek National Bank has been approved; capital \$25,000. The organizers are F. S. Westfall, Joseph Denton, F. L. Mars, J. B. Westfall, Edward Bucher and others.

Thurmond, W. Va.—The National Bank of Thurmond, capital \$50,000, has organized with W. D. Thurmond, president; C. C. Lewis, Jr., vice-president, and J. H. Miller, cashier.

Woodbury, Ga.—The First National Bank has been approved; capital \$25,000. The organizers are C. W. Powers, J. D. Sutton, A. P. Dixon, J. W. Williams, Bion Williams and L. O. Benton.

New Securities.

Alva, Okla.—The city is reported to have sold \$40,000 of water-works and sewerage bonds.

Arlington Heights, Texas.—The Attorney-General has approved \$11,800 5 per cent. 10-40-year school district bonds.

Beaumont, Texas.—Bids will be received by J. G. Sutton, city secretary, until 10 A. M. February 18 for \$20,000 of market-house and \$10,000 of fire station-house 5 per cent. bonds, redeemable after 20 years.

Blue Ridge, Ga.—Bids will be received by F. G. Dungan, City Clerk, until noon March 2 for \$30,000 of 5 per cent. 30-year sewer, water and light bonds. W. C. Boling is Mayor.

Charlotte Courthouse, Va.—A bill has been introduced in the Legislature providing for an issue of \$100,000 of Charlotte county road-improvement bonds.

Charlotte, N. C.—The Board of Aldermen has decided upon an issue of \$100,000 of bonds instead of the \$200,000 originally agreed upon.

Cheneyville, La.—The \$16,000 of school bonds are reported to have been approved and sold.

Cross Plains, Texas.—An issue of \$5000 of 5 per cent. 10-20-year independent school district bonds has been approved by the Attorney-General.

Dallas, Texas.—Bids will be received until noon February 10 for \$500,000 of 10-40-year water-works, \$100,000 of 1-40-year street-improvement and \$50,000 of 140-year school-building 4 per cent. bonds. J. B. Winslett is city secretary.

Eldorado, Texas.—This district has voted \$14,000 of school bonds.

Fountain Inn, S. C.—The Legislature has under consideration a bill authorizing Fountain Inn graded school district No. 3 B, consisting of portions of Greenville and Laurens counties, to issue bonds not exceeding \$15,000 and not to bear more than 6 per cent.

Girard, Ala.—An ordinance has been introduced in the City Council authorizing an issue of \$10,000 of school-building bonds.

Glenwood, Texas.—The Attorney-General has approved \$14,400 of 5 per cent. 40-year independent school-district bonds.

Graham, Va.—An election is to be held to vote on \$20,000 of water and street-improvement bonds.

Greenville, S. C.—Bids will be received by G. H. Mahon, Mayor, until February 26 for \$18,000 of 5 per cent. 20-year re-funding graded school bonds.

Harrodsburg, Ky.—Cincinnati parties are reported to have purchased at par \$33,500 of 6 per cent. 10-20-year city bonds.

Joplin, Mo.—The city has voted \$50,000 of 5 per cent. 5-20-year viaduct bonds.

Kirksville, Mo.—Bids will be received until 3 P. M. February 3 by J. C. Carothers, City Clerk, for \$19,000 of 5 per cent. 5-20-year funding bonds.

Knox City, Texas.—An issue of \$16,000 of 5 per cent. 10-40-year independent school district bonds has been approved.

Lexington, Ky.—Bids will be received by John Skain, Mayor, until noon February 10 for \$25,000 of 4 per cent. 40-year sewer bonds.

Lockhart, Texas.—The Attorney-General has approved \$15,000 of 5 per cent. 5-40-year Caldwell county road and bridge bonds.

Mobile, Ala.—Bids will be received until noon February 17 by Geo. E. Stone, county treasurer, for \$143,000 of 20-year Mobile county refunding bonds, interest not to exceed 5 per cent.

Morehead, Ky.—The MANUFACTURERS' RECORD is informed that bids will be received until the evening of February 10 for \$5000 of 4 1/2 per cent. electric-light-plant bonds. Jas. Clay is Mayor.

Nashville, Tenn.—Reports state that an ordinance has been introduced in the City Council authorizing an issue of \$50,000 of 4 1/2 per cent. 20-year sidewalk bonds.

Newbern, N. C.—Bids will be received by F. T. Patterson, City Clerk, until February 15 for \$50,000 of 5 per cent. 30-year bonds.

Newport News, Va.—A resolution has been introduced in the City Council asking that application be made to the Legislature for authority to issue \$100,000 of water-supply bonds.

Orange, Texas.—Reports state that an election is to be held February 18 to vote on \$15,000 of 4 per cent. street-improvement bonds.

Osceola, Ark.—Brinkerhoff & Co. of Springfield, Ill., are reported to have purchased \$68,000 of 6 per cent. 5-15-year Mississippi county securities, known as the Pemiscot bayou canal bonds.

San Angelo, Texas.—The city has voted \$34,000 of schoolhouse bonds.

Spartanburg, S. C.—A bill is reported to have been prepared authorizing the City Council to issue bonds to purchase the Home Water Supply Co. and for enlarging the plant.

Staunton, Va.—The city has sold at private sale \$55,000 of 4 per cent. bonds, \$30,000 to take up running debt and \$25,000 for school and water extension.

Tulsa, Okla.—The \$55,000 of school and sewer bonds have been sold at par to the following parties: State National Bank of Oklahoma City, \$10,000; People's State Bank of Detroit, \$45,000.

Whitesboro, Texas.—The Attorney-General has approved \$7500 of 5 per cent. 10-40-year water-works bonds.

At Okmulgee, Okla., bids will be received until noon February 17 for \$60,000 of water and \$7000 of sewer 5 per cent. 20-year bonds. *Further particulars will be found in the advertising columns.*

At Belhaven, N. C., bids will be received until March 1 for \$10,000 of 5 per cent. 25-year fire-equipment, town-hall and public-dock bonds. *Further particulars will be found in the advertising columns.*

At Dallas, Texas, bids will be received until noon February 10 for \$500,000 of 10-40-year, \$100,000 of 1-40-year and \$50,000 of 140-year 4 per cent. bonds. *Further particulars will be found in the advertising columns.*

The Bank of Springdale is reported to have merged with the First National Bank of Springdale, Ark.

The First National Bank of Batesburg, S. C., is reported to have increased its capital from \$25,000 to \$50,000.

The conversion of the Citizens' Bank of Millen, Ga., into the First National Bank

of Millen has been approved; capital \$30,000.

The conversion of the Noble State Bank of Noble, Okla., into the First National Bank of Noble has been approved; capital \$25,000.

The Central National Bank of Tulsa, Okla., is reported to have taken over the business of the Standard Bank & Trust Co. of Tulsa.

The McDowell County Bank of Welch, W. Va., capital \$100,000, has been converted into the McDowell County National Bank of Welch.

It is reported that the Thorndale State Bank at Thorndale, Texas, has amended its charter, increasing its capital from \$15,000 to \$30,000.

The conversion of the Lee County Bank of Fort Myers, Fla., into the First National Bank of Fort Myers, with \$50,000 capital, has been approved.

Reports state that the Porter National Bank of Porter, Okla., has been purchased by the First National Bank, and that it is to be reorganized as a State bank.

The Bank of Alexander at Taylorsville (Alexander county), N. C., has increased its capital from \$6000 to \$12,000. W. B. Matheson is president. In a recent issue the address was erroneously given as Alexander, N. C.

The National Bank of Brunswick, Ga., has issued a convenient pocket calendar and memorandum book, which also includes much valuable data likely to be often of use. The capital of the bank is \$150,000. C. Downing is president and E. D. Walter is cashier.

The Merchants and Farmers' Bank of Jefferson, Ga., is reported reorganized as the First National Bank of Jefferson, with \$25,000 capital. The officers are H. I. Mobley, president; W. C. Smith, vice-president; O. C. Appleby, cashier, and Miss Meda Appleby, assistant cashier.

PROPOSALS.

Bonds

Bids will be received by the Board of Aldermen until March 1, 1908, for the purchase of \$10,000 coupon bonds to be issued by the town of Belhaven, North Carolina, in denominations of \$500 each.

Sold bonds to bear 5 per cent. interest from May 1, 1908, payable semi-annually, and to mature in 25 years from May 1, 1938. Bonds cannot be sold for less than par.

The purpose of the issue is for fire equipment, town hall and public dock. The accepted bidder will be required to deposit check for 1 per cent. of amount of bid.

This January 23, 1908.

G. L. SWINDELL,

Town Clerk.

Bids on 10,000,000-Gallon Water Pump

Dallas, Texas, January 25, 1908.

Sealed bids will be received at the office of the City Secretary until 3 P. M. Tuesday, March 3, 1908, for one Ten-Million-Gallon High-Service Vertical Triple-Expansion Condensing Crank and Flywheel Pump, to be erected by the builders. Bids on any type of engine may be submitted, but preference will be given the above-described engine. Specifications on file in the office of the City Secretary, city of Dallas, Texas, copies of which will be furnished upon application.

The city reserves the right to reject, any and all bids. That with each bid there shall be deposited a certified check for the sum of five thousand (\$5000) dollars, which shall be retained by the city until the successful bidder has entered into contract with the city of Dallas. All unsuccessful bidders' deposits shall be returned to them upon the awarding of the contract to the successful bidder. In the event said successful bidder should fail or refuse to sign said contract and perform the work according to plans and specifications after award is made, said certified check shall be retained by the city of Dallas and become the property of the said city.

Envelopes must be marked "Bids on Water Pump."

J. B. WINSLETT,

City Secretary, City of Dallas, Texas.

GAS ENGINE

8 H. P. Walrath Gas Engine, single cylinder, self-contained, vertical type; never used; in first-class condition; price very low.

MORGAN CONSTRUCTION CO.,
Worcester, Mass.

OLIVER

IRON & STEEL CO.

PITTSBURGH, PA.

MACHINERY FOR SALE.

We have installed a new electric power plant, and have for sale the following second-hand machinery in good condition.

If you are interested, we will be glad to quote you prices on all or any part of same f. o. b. cars Pittsburgh, Pa.:

ENGINES FOR SALE.

1 10" and 10"x13"x24" Wilson Snyder Manufacturing Co. Duplex outside center packed plunger pump, with 14" suction pipe 60 ft. long and 14" twin strainer.

1 Otto Gas Engine, 100 H. P., with gas regulator, muffler, oil cups, electric battery, hand-starting air pump, 2 flywheels 8" diameter, 8" face, pulleys on engine 5" 5" diameter, 23" face, and 1 Moore & White friction clutch pulley 7" diameter, 21" face, 6" bore.

1 Otto Gas Engine, 100 H. P., 190 revolutions per minute, with gas regulator, muffler, oil cups, electric battery, hand-starting air pump and belt-driven air pump and tank, 2 flywheels 98" diameter, 9" face, engine pulley 58" diameter, 24" face, 1 Moore & White friction clutch pulley 6" diameter, 21" face, 6" bore.

1 Otto Gas Engine, 100 H. P., 190 revolutions per minute, with gas regulator, muffler, oil cups, electric battery, hand-starting air pump, belt-driven air pump and tank, 2 flywheels 8" diameter, 8" face, engine pulley 5" 6x22" face, 1 Moore & White friction clutch pulley 82" diameter, 21" face and 6" bore.

1 Otto Gas Engine, 80 H. P., 210 revolutions, with gas regulator, muffler, oil cups, electric battery, hand-starting air pump and air-pressure tank for power pump, but no power pump furnished; 2 flywheels 88" diameter, 7" face, engine pulley 48" diameter, 20" face, 1 Moore & White friction clutch pulley 6" diameter, 18" face, 4" bore.

1 Mertes 2-cylinder Gas Engine, 100 H. P., in first-class condition, with air-pressure tank, belt-driven air pump, electric battery for sparking plugs, gas regulator, oil cups, exhaust muffler, bolt flywheel 6" 10" diameter, 18 1/2" face, Moore & White friction clutch pulley 8" diameter, 21" face, 6" bore.

1 13"x16" Vertical Engine of New York Safety Steam Power Co. make; steam pipe 3", exhaust pipe 3 1/2", diameter of shaft 5 1/2", belt flywheel 54" diameter, 18" face, outboard bearing throttling governor; height from floor to top of cylinder 8' 6", height from floor to center of shaft 15 1/2", floor space required 5'x8'; weight of engine complete, about 75,000 pounds. Everything in first-class condition.

1 16"x18" Vertical Engine of New York Safety Steam Power Co. make; steam pipe 4", exhaust pipe 4 1/2", diameter of shaft 7", outboard bearing, belt flywheel 7" diameter, 20" face, throttling governor; height from floor to top of cylinder 9' 11"; height from floor to center of shaft 18", floor space required 8'x9'; weight of engine complete, about 145,000 pounds. Everything in first-class condition.

1 12"x15" Horizontal Engine, center crank, self-contained, flywheel 48" diameter, 5 1/2" face, belt wheel 42" diameter, 12" face, throttling governor, 3" steam pipe, 3 1/2" exhaust; height from floor to center of shaft 15", floor space required 5' 6"x9' 6". All in first-class condition.

1 10"x16" Horizontal Engine, outboard bearing, 4" diameter shaft, flywheel 5" diameter, 5" face, belt wheel 42" diameter, 14" face, throttling governor, steam pipe 2 1/2", exhaust pipe, from floor to center of shaft 15", floor space required 6'x10'. Bedplate of this engine is cracked and reinforced with a plate and bolt. This break does not hurt the running of the engine.

Yours truly,

OLIVER IRON & STEEL CO.

FROM THE VIEWPOINT OF A MANAGER OF EXPERTS



Public Accounting, the Profession of Business Precision

A year of effort in the busy market where truth-financial facts on which millions of dollars of present ownership or future investment may depend—are proved and classified and delivered to clients who know the value of truly expert work! What does it mean to the uninformed? Little, perhaps, to the great majority, those of our public who view with unconcern, or at least without needing to keep abreast of, the march of events financial, the ever-changing conditions of capital and income, trade and competition, inventive economies and modern business enterprise. By these and others still who have not learned from actual contact with the men engaged in accounting practice, the public accountants' organization is distorted into an image of the detective agency, if not of the darkened stage of legerdemain; by these, the examining auditors are more or less popularly supposed to be lightning calculators, or at least mathematicians possessing secrets never set forth in books of reference or permitted to come within the ken of ordinary bookkeepers at the desks of our counting-houses.

In these fallacies, however, there is more of truth than in the mistaken ideas of some otherwise intelligent men of affairs whose conception of the expert accountant is that of a creature at once pompous, dilatory and extortionate, perhaps even pliable.

To all of these inconsistencies, and to most of the misapprehension of every sort which has long attached to the accounting profession, the answer sounds clear, and in no recent year has the voice of worthy members of the profession everywhere sounded clearer than during that just ended.

We grant our imperfections; we claim individual fitness, as a rule, only along specific lines of expert skill; moreover, it is the claim of the accounting corporations that, considering the quality of the services performed and the real dispatch with which an engagement is covered so that the next commitment may be undertaken, accountants' fees are reasonable, and that they compare most favorably with the charges of any other class of professional men.

Without, however, entering into any defense of the accountants, save to add to the foregoing that the general reliability of the companies engaged in the accounting business stands today with as few challenges as the reputation of any other profession or any class of business, let us look at the practical side, a view of what the life in a large accounting office is like.

This, also, is much of a mystery to the average business man. When he decides to have his accounts audited he calls at the office of the company he has selected, and is received by one of the executive officers, to whom he gives instructions as to the date on which his books will be ready, and as to any special features he may expect to have included in his audit.

At the appointed time one or more accountants appear at his office and quietly proceed with their work, frequently never exchanging a word with the owner himself during the entire time they are engaged upon his accounts. In a reasonable time after they have left his office he receives a typewritten report, clearly defining his business condition, and often containing suggestions for the improvement of his accounting methods, which are of great value to him. Our merchant naturally wonders how these results are achieved; how the accountants knew just what work they were to do, and, most particularly, how entire strangers could

come into his office and be able to suggest improvements in his business methods which he had not himself seen.

Let us follow the course of this audit throughout the accounting office from the time of the inquirer's first call until his completed report is sent him.

One of the executive officers of the company, in connection with arranging all the details of the work to be performed, refers the case to a chief accountant. This individual is in general charge of the accounting staff, and is primarily responsible for the accuracy of all the accounting services performed. Upon receiving advice of the date and nature of the services to be performed, he allows the best qualified members of the staff to the work.

Specialization has become necessary in any business or profession as its advancement and growth may demand, and this is true of accounting in perhaps as great a degree as many other recognized lines. Of late this has begun to be fully understood by the general public. Moreover, the client who places his affairs in charge of an audit company commits to their keeping the records of his business, the evidences of prosperity realized through his business acumen, or the proofs of his losses made through lack of judgment or other causes.

In either case that which the client considers most confidential and important to him has been intrusted to the knowledge of another. Therefrom arises the great responsibility of the accountant, and to meet the conditions of the profession as it is practiced today he must have at command a force large enough to include a specialist in every line of business. This presupposes departmental work carried out in the finest detail, and as we look at the life in the office of a great accounting corporation we find that men are provided who have been gathered as exponents of all branches of the mercantile and financial world, even including linguists for foreign assignments. They have supplemented the experience gained in their several lines by the knowledge required to make them valuable as accountants, and it is only from such a staff that a representative is drawn when a client enters into a contract to have his books audited or investigated, a system devised or any other expert service rendered. The information required is arrived at by questions being both asked and answered, and a comprehensive idea of the situation obtained through the original interview.

With all of these things taken into account, the accountants selected report at the office of the client and audit his books upon the lines laid down for them by the chief accountant. During the course of their work they are almost constantly under the eye of the supervising accountant or field manager, who has been appointed to his position through his large general knowledge of business conditions and for his superior executive ability. After the completion of the work on the books in the client's office it is his duty to carefully examine all the working papers of the various accountants employed and to compare them with the rough drafts of the exhibits which are to be submitted to the client. All the papers in the case are then turned over to the chief accountant, who in turn inspects them and who, when convinced of their accuracy, gives the first polish to the exhibits. If any suggestions are to be made as to methods employed by the client, these are submitted by him to the manager of the system department, who has been appointed to his position for his ability as an organizer of business methods.

The exhibits are then submitted to the officers, who each go over them carefully, not only to judge as to their accuracy, but also with a view to deciding as to their aptness as a portrayal of the true position of the business under consideration.

Not until the exhibits have passed through all these hands are they considered ready to be typewritten, which work is performed by a corps of stenographers especially trained for this class of work.

After they have been typed the pen copies of the exhibits are returned to the accounting department, together with one copy of the typewritten statements, where they are carefully compared by two accountants to eliminate all possibility of clerical, typographical, or other errors.

The report is then ready finally to be signed and forwarded to the client.

Thus we see that what is apparently a simple matter of the checking or footing of a few books is in reality a very complicated process, being surrounded with every safeguard which ingenuity can devise to secure exactness, fidelity and secrecy.

The filing department of an accounting corporation is a most important one, and in the modern office an expert on this work is employed not only to keep the records in the most accessible form, but also to be responsible for the proper receipt of each paper transferred to that department and the custody of working papers, as well as reports.

As part of the profession of business precision a complete library is essential to the public accountant. It includes not only the best books of reference on the subject of accounting and finance, but also complete files of railway reports, bank statements of various States, and stock and bond quotations for many years.

Within a decade our financiers, our merchants and our manufacturers depended almost entirely on their own employees for the proper verification of the accounts of their business, and only when errors or crimes were made apparent, usually by the disappearance of a trusted man, did they seek for help from independent accountants.

Today certificates of recognized value are accepted in both commercial and financial circles, and are relied upon as never before. The benefits of public accounting are recognized and appreciated to a greater degree than ever before. To be successful the merchant or banker must know the precise status of his business, and be able to compare the volume and to class all his operations in former years with those of the present. The account provides a clear, efficient and exact record of such transactions, and annually or semi-annually, as the case may be, verifies the correctness of the work performed by the clerks of his client. This joint service not only safeguards the business man of today, but permits him to draw comparisons which guide him in determining his present policy and future course of procedure. Consideration and appreciation, particularly in the mercantile world, during this and very recent years, of the value of such services has been marked, which is an added assurance that with the future growth of the profession of accounting its responsibilities will be more and more realized by its members. By these only the highest class of services must be rendered, and the motto of all public accountants must be not how cheaply can the client be served, but rather how well.

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